FASD Across the Lifespan

Welcome to FASD Across the Lifespan

A training series for Alaska families

FASD Across the Lifespan

Land acknowledgment

"We are gathered today on the land of the (_____ fill in as indicated) peoples. I ask you to join me in acknowledging the (_____) community, their elders both past and present, as well as future generations. We also acknowledge that our founded in the aftermath of influences that led to exclusions and erasures of many Indigenous peoples, including those on whose land we are currently located.
This acknowledgement demonstrates a commitment to continuing the process of working to dismantle the ongoing legacies of settler colonialism including racial, cultural, and political accusations and judgments about risk and blame associated with alcohol use and the role it plays in shaping and reinforcing stigma in our communities."

In this series

FASD Across the Lifespan

- Introduction and Diagnosis
- → Infant Learning and Early Intervention
- Preschool and Social Development
- School Age and Learning
- Middle School and Challenging Behaviors
- High School and Transition to Adulthood
- Adulthood and Interdependence

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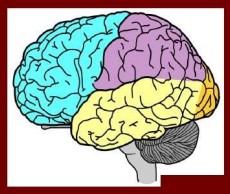
Objectives

1. Understanding of the effects of prenatal alcohol exposure on early developmental milestones
2. Understanding of the sensory processing issues that affect early development
3. Relationship-focused early interventions

Why is Early Intervention Important?

- Infancy is a period of profound development in the brain unmatched by any other period with over 1 million neural connections made every second – an incredible opportunity (Centre on the Developing Child, 2017)
- Early experiences (both positive and negative) have a decisive effect on how the brain is wired. Practitioners who understand even the most basic brain science of brain development are better equipped to meet the needs of this young group of children.
- When young children focus on getting their basic needs met, these connections in the brain mature, while other circuits may be lost if unused/activated.

INFANT BRAIN



- By 5 months gestation - 80 billion neurons that will form the adult cortex have been created.
- During the first 8 months, new connections are formed more quickly than they are broken.
- Development requires not only synaptic connections but selective loss or "pruning".
- Trauma and stress adversely affect the growing brain.

YCS Institute for Infant and Preschool Mental Health 2

Brain Growth in the Early Years

Pre natal Development

- Breathing
- Feeding
- Body Temperature
- Sleep and Activity
- Voiding
- Gastrointestinal Tract

Premature Birth

- Low Birth weight <2500 grams or 5.5 lbs
- Small for gestational age (SGA)
- Intrauterine growth restriction (IUGR)
- Some infants may be both premature and low birth weight

Infant Sleep

- Prenatal alcohol exposure can disrupt sleep organization and can cause more periods of wakefulness
- More frequent waking can lead to less overall sleep time for babies (and their care providers!)
- Lack of sleep can cause a reduction in normal sleep movements, increased risk of SIDS, and increased fussiness during daytime

Types of sleep disturbances

Difficulties falling asleep

Frequent awakenings during the night for minutes or even hours

Early morning awakenings

Other but less frequent:

- Night terrors
- Sleep walking
- Day time fatigue


Causes of Sleep Issues
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• What is sleep about?
• Based on circadian and homeostatic processes
• Circadian rhythm incorporates cues from the external environment to regulate timing
• Sleep pressure in the homeostatic process is relieved by daytime naps and nighttime sleep
• Ultradian rhythm refers to organization of sleep cycles into alternating periods of NREM and REM sleep


Helping Babies Sleep
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Infancy
• Use the cradle/cot for sleeping not as a play pen
• Remove mobiles from over the cradle, cot, high chair or car seat.
• Use plain cradle and cot linen and liners.
• A dark room for sleeping is best.
• Keep any night lights away from cradle/cot.


Feeding and Eating Issues
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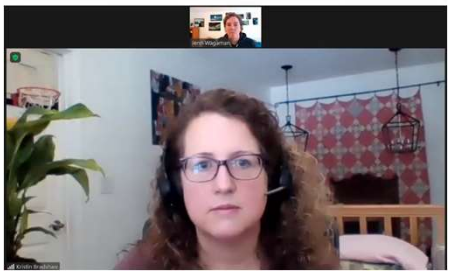
• Abnormal feeding patterns due to delayed oral motor development
• Distractibility during feeding
• Poor sucking ability
• Easily fatiguing during oral feedings
• Gag reflexes
• Constant drooling
• Aspiration
• Nasal regurgitation
• Micrognathia

Feeding issues

- Swallowing deficits for infants diagnosed with fetal alcohol syndrome are challenging and may also be life threatening if the signs of aspiration are not caught quickly.
- Special care needs to be taken when feeding these infants during the first year of life.
- Alternate means of feeding may be required to provide the infant with adequate nutrition and hydration.

Strategies for Feeding



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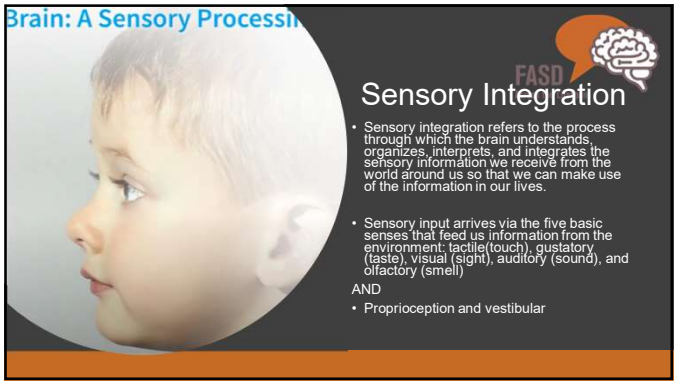
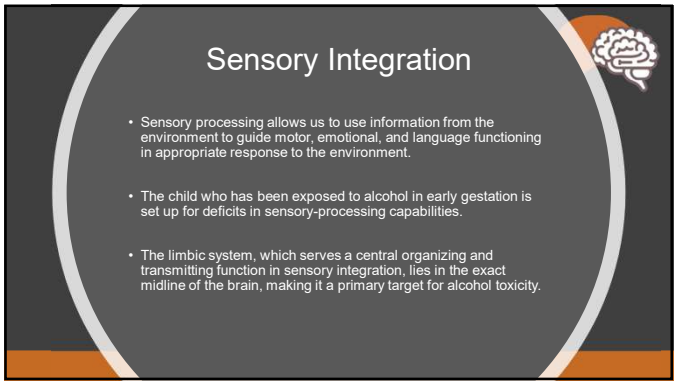
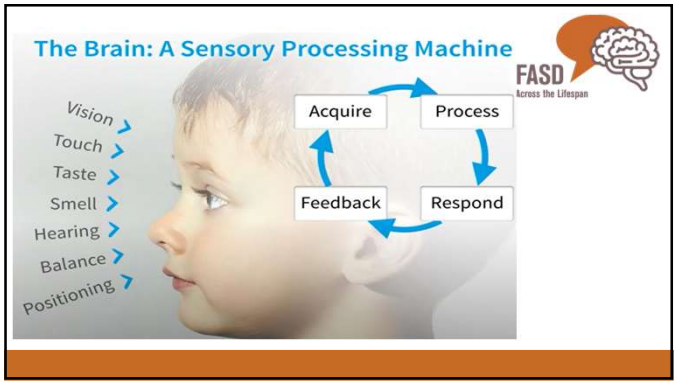
Alaska Center for Children And Adults

Other Issues

- High or low muscle tone
- Arching, tremors, or other signs of stress


Brain: A Sensory Processi
FASD
Sensory Integration
• Sensory integration refers to the process through which the brain understands, organizes, interprets, and integrates the sensory information we receive from the world around us so that we can make use of the information in our lives.
• Sensory input arrives via the five basic senses that feed us information from the environment: tactile(touch), gustatory (taste), visual (sight), auditory (sound), and olfactory (smell)
AND
• Proprioception and vestibular


Sensory Integration
• Sensory processing allows us to use information from the environment to guide motor, emotional, and language functioning in appropriate response to the environment.
• The child who has been exposed to alcohol in early gestation is set up for deficits in sensory-processing capabilities.
• The limbic system, which serves a central organizing and transmitting function in sensory integration, lies in the exact midline of the brain, making it a primary target for alcohol toxicity.


The Brain: A Sensory Processing Machine
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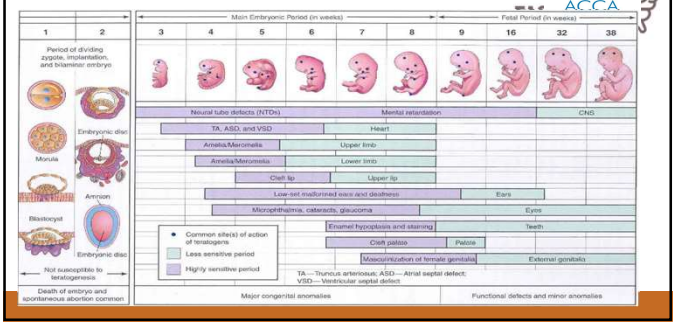
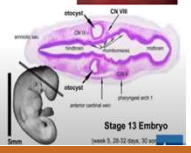
Across the Lifespan
Vision
Touch
Taste
Smell
Hearing
Balance
Positioning
Acquire
Process
Feedback
Respond

Vulnerabilities



Sensory Processing and Integration

- Before anything else we are sensory creatures, even in utero.
- Otocyst – Vestibular and hearing organ apparent at 5 weeks gestation.
- Taste buds emerge at 8 weeks.
- Tactile comes online at 12 weeks.
- Vestibular system ***already functioning*** at 20 weeks.
- At 24 weeks the eyes open and are sensitive to light



Sensory Integration

- Dysfunction may show up in several ways. If a child cannot filter information as it comes into the brain, the brain quickly becomes overloaded and causes the child to avoid sensory stimuli.
- Conversely, when there is a problem integrating and organizing sensory information, the brain receives too little input and seeks out additional sensory information.
- Some children with prenatal alcohol exposure may have higher sensory thresholds, and others may have lower sensory thresholds.

Sensory Processing

Over-Sensitivity

Under-Sensitivity

Touch

- Receptors located through out the skin
- Discriminative touch tells us about the properties of things
- Protective touch tells us when are in danger

Red Flags for Poor Touch Discrimination

Hypo-sensitive

- Mouth objects past normal
- Touch hungry
- High pain tolerance
- Hyper vigilant visually
- Poor fine motor skills therefore poor play skills

Tactile Discrimination Intervention

Red Flags for Poor Protective Touch

Hyper-sensitive

- Tactile/defensiveness/sensory defensiveness
- Babies arch away from caregivers
- Distressed over hygiene and grooming
- Do not like messy play
- Babies may crawl with fisted hands or curled toes
- Picky Eater
- High frequent meltdowns
- Irritable, fussy, whiney miserable

Vestibular System

- Receptors located in inner ear, semi-circular canal, the saccule, and the utricle
- Tells us if we are right side up or upside down
- Contributes to bilateral motor coordination
- Helps us manage our level of alertness, our state of arousal

Red Flags Vestibular System Hyposensitive

- Sensory seeker
- Poor safety awareness
- Lack of fear
- Poor muscle tone and joint stability
- Difficulty with balance and protective responses
- Difficulty with activities that require bilateral motor coordination

Intervention Strategies Hypo Sensitive Vestibular

Red Flags Vestibular System Hyper-sensitive

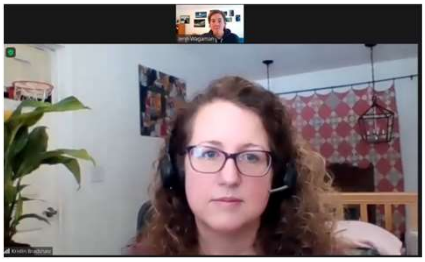
- Gets car sick easily
- Avoids things that challenge balance
- More passive, clingy children
- Dislikes playground equipment
- Doesn't like changes in head position (diaper changes)
- Afraid of open stairs, escalators
- Lots of frequent meltdowns and falling apart

Intervention Strategies Hypersensitive to Movement

Hypersensitive to movement

- Go slow
- Linear movement is more tolerable than any other.
- Do not impose

Strategies for Fussy Babies



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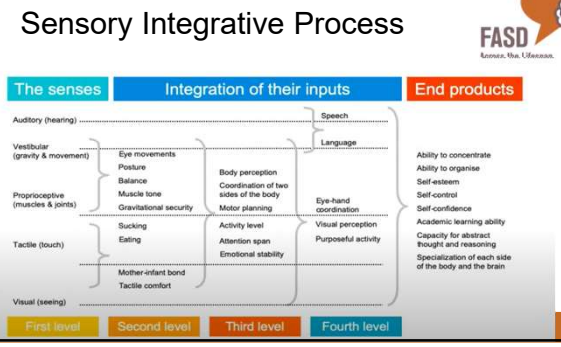
Sensory Integrative Process



Impact of Sensory Processing Issues

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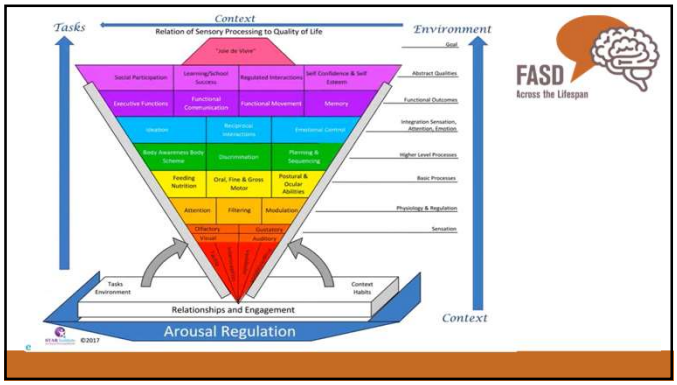
"In order for an individual to develop robust gross and fine motor control and skill; interpersonal competency; academic aptitude; and vocational capability, a foundation of intact sensory processing and integration is paramount (Ayres, 2011; Greenspan & Wieder, 2006a; Shanker, 2004)."

Schoen, S. A., Spielmann, V., & Miller, L. J. (2019). Introduction to Sensory Integration Methods in Autism. In E. M. Sokhadze & M. F. Casanova (Eds.), *Autism Spectrum Disorder : Neurofeedback and Sensory Integration Approaches to Research and Treatment* (pp. 253–283). Murfreesboro, TN: Foundation for Neurofeedback & Neuromodulation Research (FNNR) and BMED Press.



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Self-regulation

- Babies are not born knowing how to self-regulate
- Learning how to stop impulses is hard work
- Self-regulation develops slowly
- "I can't stop myself"

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Self-Regulation & Co-Regulation

- Recognize the child's states and figure out what they need …
- Help the child get back to a calm, "just right" state

Self-Regulation & Co-Regulation

- First recognize your own stress responses, and get yourself **calm**

Impact on Attachment

Secure Attachment

Caregiving Behaviours and Parent/Child Relationships

Parent Behaviour	Actions	Child/ Relationship
Sensitive	• Gentle • Sensitive • Fosters autonomy • Delights	Secure – "I need you"

Child Abuse Prevention and Treatment Act

- All children under age 3 who (a) are the subject of a substantiated case of abuse or neglect or (b) are identified as being directly affected by substance use or withdrawal symptoms resulting form prenatal drug exposure must be referred to the local Part C program.

References

1. The Implications of Neuroplasticity for a Brain Affected by FASD https://www.youtube.com/watch?v=UK5FaX0Io0s
2. Inkelis, S.M. & Thomas, J.D> (2019). Sleep in infants and children with prenatal alcohol exposure. Alcohol Clin Exp Res.

- Strategies for Infants and Toddlers with Fetal Alcohol Spectrum Disorders. wwwfasstar.com
- Weiner, Ly., Morse, B (1994). Intervention and the Child with FAS. Alcohol Health & Research World, Vo. 18, No. 1, 1994.

Resources

- **More Resources:**
- Toolkit for Australian Parents/carers
- Foster Parent's Guide to FASD (Dr Sara McLean- Australian publication)
- I am a Caregiver of a person with FASD – this is an excellent parenting resource from the Canada FASD Research Network
- Baby Steps: Caring for babies with prenatal substance exposure
- Who has to change? Trying their hardest, doing their best! – What it is like to live with Fetal Alcohol Spectrum Disorder
- Strategies not Solutions: A resource developed to educate caregivers and the community in managing the behaviours associated with FASD throughout the lifespan. The project relied heavily upon caregivers and professionals who provided information, advice, and feedback.
- The SECCA App is a free innovative resource to support access to relationships and sexuality education for people of all ages and abilities.
- Eight magic keys of success – nine short videos.
- Behavioural Symptoms & Accommodations for FASD
- Fred's Story. In this video international expert Diane Malbin, explains why we need to think differently and try to prevent unwanted behaviour before it happens. This video complements Diane's book "Trying Differently Rather than Harder" – available from her website or from Amazon.
- Understanding Brain Impairment in FASD (Interactive).
- Parent Panel: Voices of parents and carers for health professionals—how can we help each other. End Australasian FASD Conference 2018 Our Science our Stories

https://www.nofasd.org.au/parencarers-and-families/fasd-management-interventions-strategies/

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With funding from the State of Alaska FASD Program and the Alaska Mental Health Trust Authority.