

# Fetal Alcohol Spectrum Disorders (FASD)

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# What is FASD?

- Lifetime disability with permanent brain injury
- Broad range (spectrum) characteristics vary from person to person

# Facts about Fetal Alcohol Spectrum Disorders (FASD)

- FASD = the #1 cause of mental retardation in North America
- Most people with FASD have average IQs
- Rate of FAS (syndrome) is 1:500 births
- Rate of FASD (spectrum) is 1:100 births
- Fetal Alcohol Spectrum Disorders are 100% preventable

# The FASD Umbrella

- Alcohol Related Neurodevelopment Disorders (ARND)
- Fetal Alcohol Syndrome (FAS)
- Partial Fetal Alcohol Syndrome (pFAS)
- Alcohol Related Birth Defects (ARBD)

# Diagnosing FAS (Fetal Alcohol Syndrome)

**Person must have signs in each area:**

- Growth retardation
- Abnormalities in central nervous system (CNS)
- Facial abnormalities: eyes, smooth philtrum (without a ridge), thin upper lip
  - Pinky finger may be smaller & attached to ring finger

# Why Does Alcohol Affect the Fetus?

Alcohol is a **teratogen** - a substance that the fetus is exposed to that impedes growth and disrupts normal development.

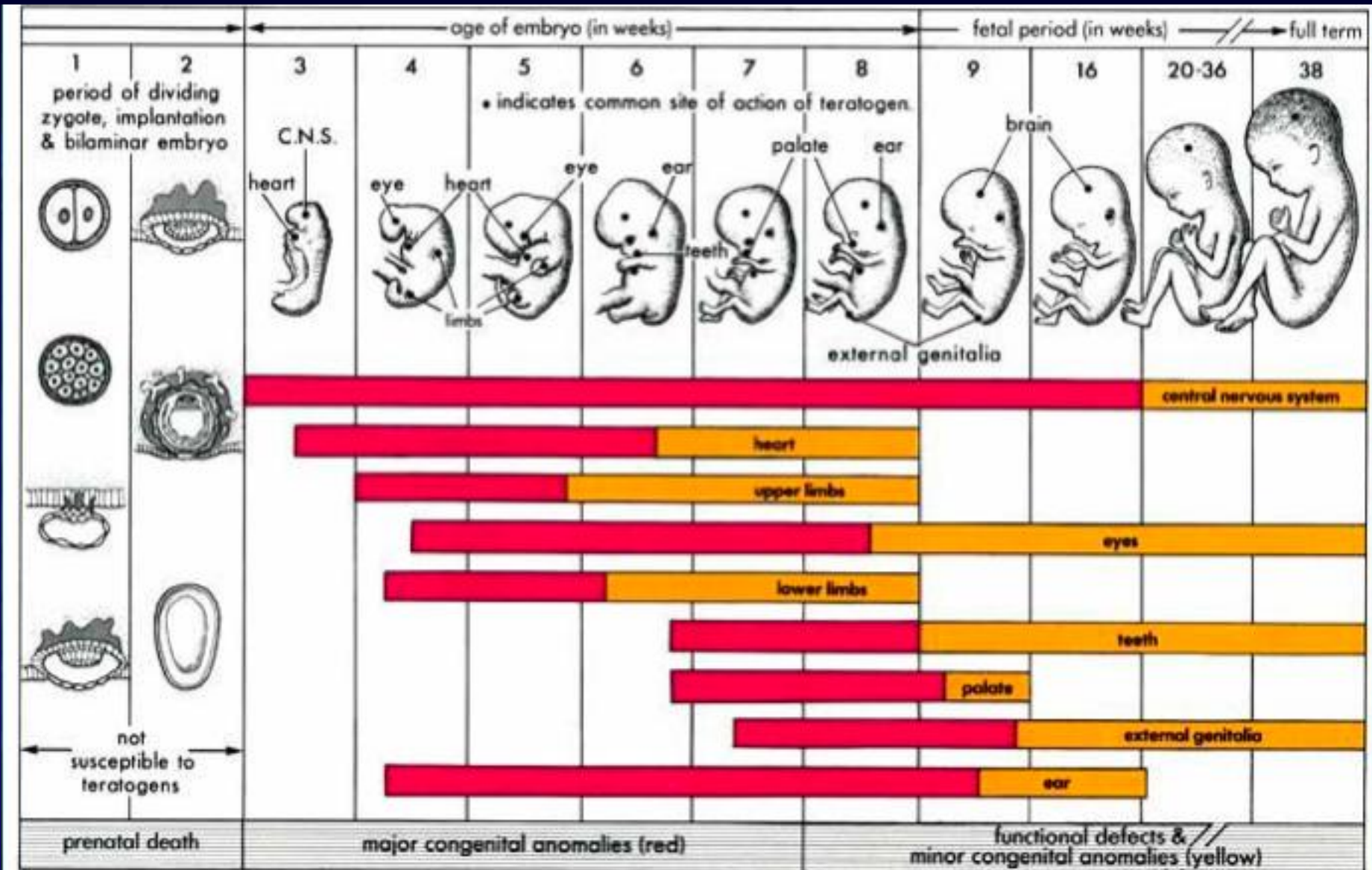
“No amount of alcohol consumption can be considered safe during pregnancy.”

U.S. Surgeon General Richard H. Carmona

February 21, 2005

# How Does Alcohol Affect the Fetus?

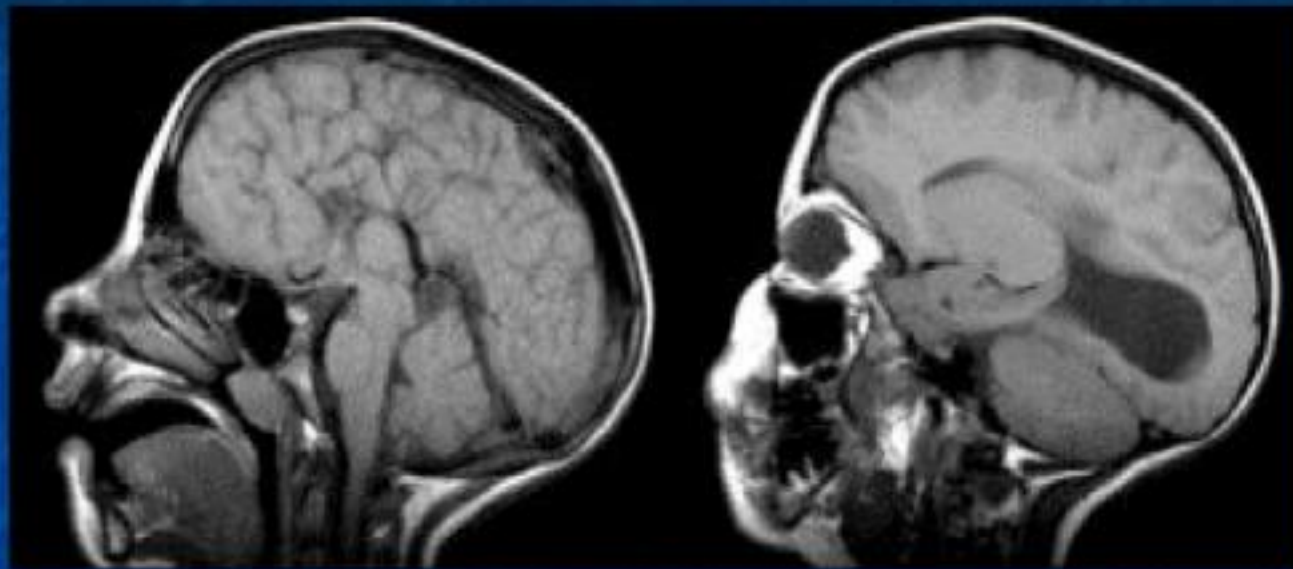
- Crosses the placental barrier to the fetus
- “Face” of FAS forms during the 3rd week of gestation, most likely days 19-21
- Alcohol exposure does not always result in FASD
- Whenever a pregnant woman stops drinking, she can improve her baby’s health



# Damage by Trimester

- 1<sup>st</sup> trimester – alcohol kills cells and interferes with cell replication
- 2<sup>nd</sup> trimester – cells must separate and specialize, alcohol kills cells & interferes with migration = fewer specialized cells
- 3<sup>rd</sup> trimester – alcohol interferes with myelin formation, cuts connections between cells and causes slower info processing
  - Membrane separates the 2 brain lobes

# *FAS and the Brain*



A

These two images are of the brain of a 9-year-old girl with FAS. She has agenesis of the corpus callosum, and the large dark area in the back of her brain above the cerebellum is essentially empty space.

# FASD is the Invisible Disability

- Attention deficits
- Memory deficits
- Hyperactivity
- Difficulty with abstract concepts
- Inability to manage money
- Poor problem solving skills

# FASD Invisible Disability, cont

- Difficulty learning from consequences
- Immature social behavior
- Inappropriately friendly to strangers
- Lack of control over emotions
- Poor impulse control
- Poor judgment

## Discriminating Features

short palpebral fissures

flat midface

short nose

indistinct philtrum

thin upper lip

## Associated Features

epicanthal folds

low nasal bridge

minor ear anomalies

micrognathia

In the Young Child



# Secondary Disabilities

- Primary disabilities are those the child is born with
- Secondary disabilities are those that develop as a result of failure to properly deal with the primary disabilities

# Secondary Disabilities

<b>Problem</b>	<b>% of patients with FASD</b>
Mental Health/Psychiatric Problems	94%
Problems with Employment	80%
Patient in Dependent Living	80%
Inappropriate Sexual Behavior	45%
Disrupted School Experience	43%

# Secondary Disabilities, cont

<b>Problem</b>	<b>% of patients with FASD</b>
Trouble with the Law	42%
Confinement for a Crime	35%
Mental Hospital Admission	23%
Drug/Alcohol In-Patient Treatment Admission	15%

# Protective Factors

- A diagnosis before 6 years of age
- Living in a stable, nurturing home
- Not being a victim of violence
- Having received developmental disabilities services
- Having a diagnosis of **FAS** rather than **FAE**
- Lower than 70 IQ

# 8 Magic Keys

- Concrete
- Consistency
- Repetition
- Routine
- Simplicity
- Specific
- Structure
- Supervision

**When a situation is confusing & an intervention is not working:**

- **STOP ACTION!**
- **OBSERVE**
- **LISTEN CAREFULLY**
- **ASK-WHAT IS HARD?**
- **WHAT WOULD HELP?**

**Never ask WHY**

# Rage Behaviors

- Many individuals with FASD diagnosis are  $\frac{1}{2}$  their chronological age
- Cannot force them into calming down
- Back off, be calm, follow behavior plan in IEP
- Hovering, shouting, ordering, anything physical will produce fight or flight
- Co-Regulate until they can self-regulate
- Learn to recognize signs of over-stimulation
  - Rocking, crying, tense muscles, hyperactivity, shutting down, chewing clothing, rapid breathing

# Sensory Challenges

- **Sensory seeking-**  
bumping, crashing,  
touching, noise making,  
constant chatter,  
picking at skin, weight is  
calming
- **Sensory avoiding-**  
cocooning or crawling  
under desk, avoiding  
sounds, irritated by  
clothing tags or  
fluorescent lighting



# Sensory Processing Disorders

...are common among people with Fetal Alcohol Spectrum Disorders. Occupational therapy offers many interventions that help children self-regulate, calm, cope, and learn better.



# Strategies to help with Sensory Challenges

- Adapt the environment
- Provide a calm safe place
- Provide fidgets
- Know trouble areas and prepare
  - Long lines
  - Crowded places
  - Unstructured areas
  - Busy places

# Strategies for Success

- Adapt environment to minimize frustration
- Build in sensory time-use weighted blankets, vests, fidgets
- Co-regulate behavior-think Mr. Rogers!
- “KIS”

# Strategies

- Social reminders
- Teach self awareness & advocacy
- Proactive, not reactive!

# School Strategies

- Allow late arrival and early departure
- Let them leave when finished eating
- Sit at the end of the table-not in the middle
- Decrease hanging projects from the ceiling-too distracting
- Structure schedule
- Keep seating arrangement all year

# More School Strategies

- Give student easiest locker location
- Same teacher for more than 1 class
- Same room for more than 1 class
- Same para all day
- No homework-separate home from school
- Need to learn procedure to the outcome step by step
- Break it down, then break it down again
- Reteach, Reteach, Reteach

# Strategies for Transitions

- Timers
- Songs
- Picture schedules
- Establish routines
- Child with transition difficulty becomes the helper
- May need to avoid waiting in lines

# Recognize Strengths

- Highly verbal
- Artistic, musical
- Athletic
- Long term visual memory
- Willing
- Helpful
- Loyal
- Curious
- Generous
- Energetic and hard working
- Want to succeed
- Forgiving
- Spontaneous
- Good with young kids
- Friendly and outgoing

# Positive Characteristics

- Friendly, cuddly, happy
- Caring, kind and loyal
- Curious and involved
- Energetic, hard working
- Fair and cooperative
- Artistic or musical
- Highly verbal
- Long term visual memory



# MOFAS

## MN Organization on Fetal Alcohol Syndrome

- Email: [info@mofas.org](mailto:info@mofas.org)
- Website: [www.mofas.org](http://www.mofas.org)
- Phone: 651-917-2370

The information for this presentation was obtained from the MOFAS website and Karrie Halbur (presenter at the Prevent child Abuse MN [PCAMN] Conference).