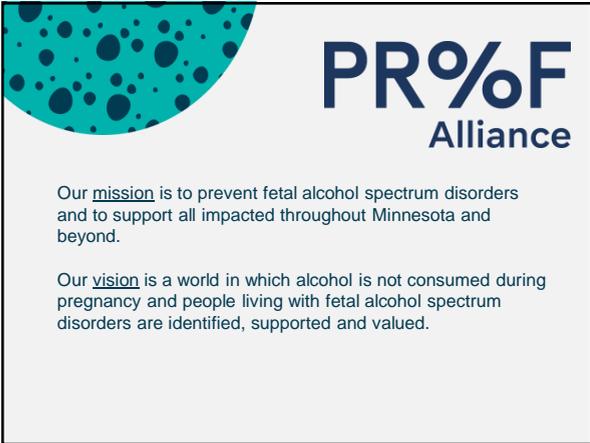
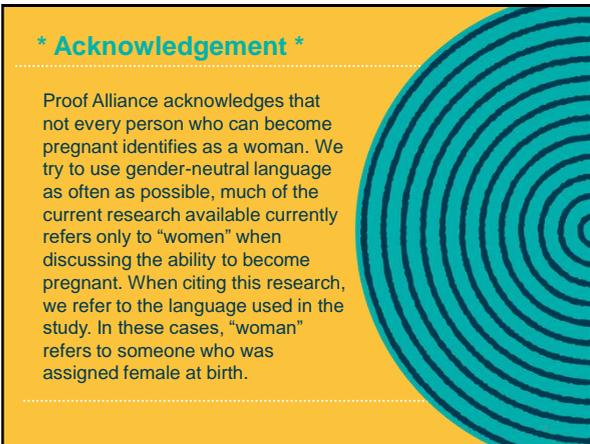




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3

What is FASD?

Fetal Alcohol Spectrum Disorder

- A group of birth defects that is the result of prenatal alcohol exposure
- Wide range of symptoms including physical, mental, behavioral, & learning disabilities
- Prenatal alcohol exposure affects each person differently & organic brain injury causes inconsistency
- Permanent disability, lasts a lifetime
- **All people with FASD can be successful**



4

FASD is Not a Diagnosis

FAS	fetal alcohol syndrome
PFAS	partial fetal alcohol syndrome
ARND	alcohol related neurodevelopmental disorder
ARBD	alcohol related birth defects
ND-PAE	neurobehavioral disorder associated with prenatal alcohol exposure (mental illness diagnosis in DSM-5)
FAE	fetal alcohol effects (outdated term)

5



True or false?

FASD is more common than Down syndrome.



True or false?

FASD is more common than autism.



True or false?

FASD is the leading cause of intellectual disabilities in the U.S.

6

Prevalence Study



Research shows as many as 1 in 20 children in the U.S. have an FASD.

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7

Effects of alcohol during pregnancy

Decades of research have shown:

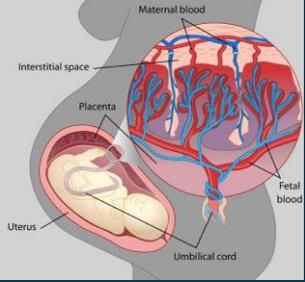
- Even low levels of alcohol can affect the fetus
- The risk increases with more alcohol
- The healthiest and safest choice is to avoid drinking any alcohol during pregnancy.



8

Effects of Alcohol during Pregnancy

- Pregnant person drinks alcohol
- Alcohol enters the placenta & passes from maternal blood supply to fetal blood supply
- Fetus excretes alcohol into the amniotic fluid
- Fetus then swallows amniotic fluid
- Alcohol is perpetually reabsorbed by the fetus



9

9



Factors of Severity

Factors that impact fetal vulnerability:

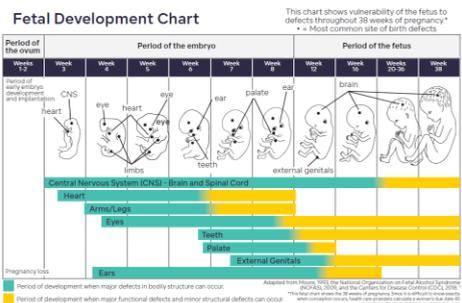
- Dosage/BAC
- Resiliency of the fetus
- Mother's health, age, etc.
- Genetics
- Other substance exposure
- Timing of the exposure

Remember:

- PAE does not always result in an FASD
- FASD is not generational
- Manifestations are unique in each individual

10

Fetus Developmental Timeline



This chart shows vulnerability of the fetus to defects throughout 38 weeks of pregnancy*
 * = Most common site of birth defects

Period of the organ	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14	Week 15	Week 16	Week 17	Week 18	Week 19	Week 20	Week 21	Week 22	Week 23	Week 24	Week 25	Week 26	Week 27	
Heart																												
CNS																												
Eye																												
Heart																												
Limbs																												
Teeth																												
Palate																												
External Genitals																												

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11

Alcohol vs. Other Substances

According to IOM, which of the following substances cause the most serious neurobehavioral effects on a developing fetus?

- Opioids/Heroin
- Crack/Cocaine
- Methamphetamines
- Marijuana
- Alcohol



12

FASD Impacts Us All

According to the CDC, which group of women are most likely to drink alcohol during pregnancy?

- A. College Educated
- B. High School Graduate/GED
- C. Left School Before Graduating

13

11.5%

In the United States, 11.5% of women drank alcohol during pregnancy and 4% engaged in binge drinking.



14

What's one drink?

Many people are surprised to learn what a standard serving actually looks like.

- Generally, the standard is 12 ounces for beer, 5 oz for wine and 1.5 oz for distilled spirits
- Alcohol content varies from one beverage to the next



15



Ending the Stigma

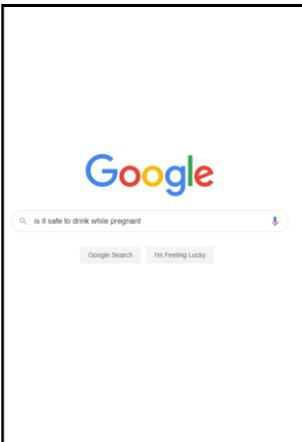
Why do people drink alcohol during pregnancy?

16

FASD is a Complex Public Health Issue

- Unplanned pregnancy may lead to drinking without the knowledge they are pregnant
- Substance use disorders
- Form of self-medicating or coping mechanism due to external stressors or mental illness
- Binge drinking is generally socially-accepted
- Mixed messages from family, friends, media, etc.
- Doctors implicitly give permission by not discussing alcohol use with their patients or downplaying the risks
- Public still misunderstands risks from drinking and does not recognize the high prevalence of FASD

17



Where are you getting your medical advice from?

Abstaining completely from alcohol during pregnancy - from conception through birth - is recommended by all major medical groups, including:

- Centers for Disease Control and Prevention (CDC)
- U.S. Surgeon General
- American Academy of Pediatrics
- American College of Obstetricians and Gynecologists (ACOG)
- National Institutes of Health
- World Health Organization

18



What role does dad play?

- There is not enough research yet to decide if the father's alcohol use can also be unsafe.
- Even so, alcohol consumed by the males can lead to a variety of problems in the reproductive system.
- There are many health benefits linked with drinking less alcohol. Also, this is a way to be supportive of their partner choosing an alcohol-free pregnancy.

19

19

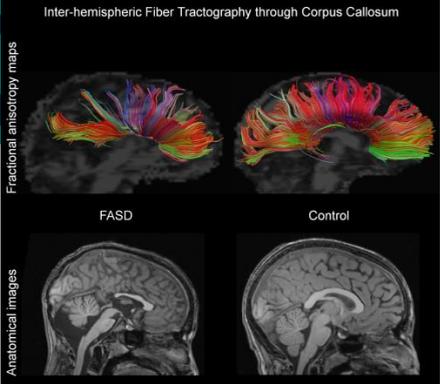
True or False?

Most people with an FASD have distinct facial impairments caused by prenatal alcohol exposure.



20

Inter-hemispheric Fiber Tractography through Corpus Callosum



Fractional anisotropy maps

FASD Control

Anatomical images

Photo courtesy of Dr. Jeffery Wozniak, University of Minnesota, 2019

21

Common Neurobehavioral Symptoms

Impaired Executive Functioning:

- Organizing stored information
- Planning future events
- Problem solving
- Memory and attention
- Impulse control
- Cause and effect
- Generalizing concepts
- Abstract concepts

22

Common Neurobehavioral Symptoms

It's important to remember that FASD is a spectrum disorder. This is only a small sampling of the characteristics that are common with FASD.

- Poor social skills/lack of boundaries
- Slower information processing
- Learning difficulties (commonly but not limited to math)
- Anger or frustration often & may take longer to self regulate
- Extreme under or over-sensitivity to sensory input
- Difficulty following directions or connecting steps
- May be prone to confabulation

23

Developmental Skills: Case Example

Physical maturity	→	18 years old
Comprehension	→	6 years
Emotional maturity	→	6 years
Social Skills	→	7 years
Concept of money, time	→	8 years
Reading level	→	16 years
Expressive language	→	20 years

24

Fingledobe & Pribin

Last serny, Fingledobe & Pribin were in the nerd-link treppering gloopy caples & cleaming burly greps.

Suddenly a ditty strezzle boofed into Fingledobe's tresk.

Pribin glaped & glaped. "Oh Fingledobe!" He Chifed, "That ditty strezzle is tunning in your grep!"

25

Recognize Strengths

- **Friendly, likable:** May be outgoing & sociable & have little anxiety about strangers
- **Verbal, chatty:** May be very socially interested (but not necessarily socially skilled)
- **Helpful, hard-working:** If you ask, they will do it. They can be very good workers with the right job & training
- **Determined, resilient:** They don't hold grudges & will come back if rejected. Every day is a new day!
- **Want to be liked:** They will do whatever they can to have friends

26

What Else Can FASD Look Like?

Overlapping Characteristics & Mental Health Diagnoses	FASD	ADD/ADHD	Sensory Mt. Dys.	Autism	Bi-Polar	RAD	Depression	ODD	Trauma	Poverty
	Organic	Organic	Organic	Organic	Mood	Mood	Mood	Mood	Environ	Environ
Easily distracted by extraneous stimuli	X	X								
Developmental Dysmaturity	X			X						
Feel Different from other people	X				X					
Often does not follow through on instructions	X	X					X	X	X	X
Often interrupt/ intrudes	X	X	X	X	X		X			X
Often engages in activities without considering possible consequences	X	X	X	X	X					X
Often has difficulty organizing tasks & activities	X	X		X	X		X			X
Difficulty with transitions	X		X	X	X					
No impulse controls; acts hyperactive	X	X	X		X	X				
Sleep Disturbance	X				X		X			X
Indiscriminately affectionate with strangers	X		X		X	X				
Lack of eye contact	X		X	X	X	X	X			
Not easily	X			X		X	X			
Lying about the obvious	X				X	X				
Learning lags: "Won't learn, some can't learn"	X		X			X			X	X

27

Why We Recommend PAE Screening

- Recognize the brain injury/disability
- Improved outcomes
- Approaches can be modified
- Reduced frustration and anger
- Reframe poor self-perception
- Prevention of future alcohol exposed pregnancies

28

Screening Saves Lives



A RECENT RESEARCH STUDY ESTIMATED THAT THE AVERAGE LIFE EXPECTANCY FOR SOMEONE WITH FETAL ALCOHOL SYNDROME IS 34.

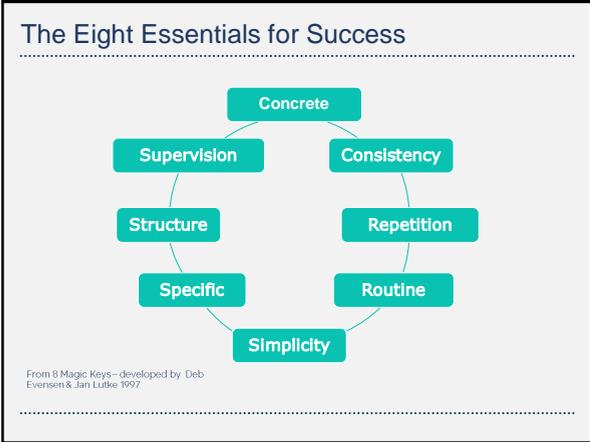
J Popul Ther Clin Pharmacol. 2016;23(1):e53-9. Epub 2016 Mar 9.

29

Look for Risk Factors

- Biological family history of substance abuse
- Known drug exposure
- Children in foster &/or adoptive care system
- School difficulties starting at a very young age
- Maternal mental illness
- Siblings with an FASD or a related diagnosis
- Multiple diagnoses & meds don't work
- Regions with exceptional high rates of alcohol consumption or known cases of FASD
- Involvement in criminal justice system &/or substance use at a young age

30



31

REGISTER HERE <https://proofalliance.swoogo.com/ProofCON2021>

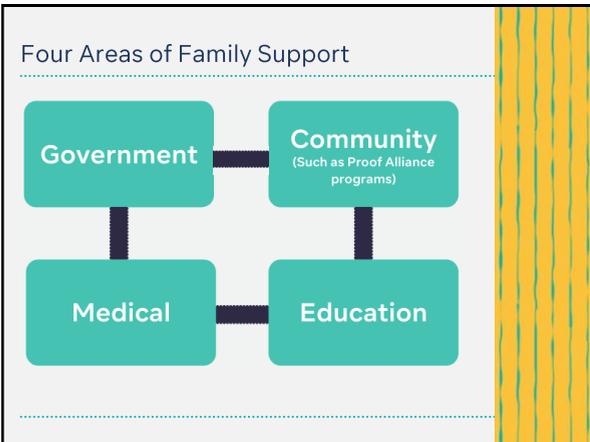
10TH ANNUAL FASD CONFERENCE
HOSTED BY PROOF ALLIANCE

**EMPOWERED
BY THE
PROOF**

Join us online or in-person
October 13-15, 2021
[#EmpoweredByProof](#)

The latest information, ideas and strategies for supporting and preventing fetal alcohol spectrum disorders (FASD).

32



33

Roxanne.King@proofalliance.org

Caregiver Support Groups

- Alone but Together: Caregiver Support Group (virtual and in-person)
- Caregivers Connect Support Group (virtual and in-person)
- Peer on Peer During Sensory Group: Caregiver Support Group (in-person)

34



Circle of Hope Birth Mother Network

- Changing Course
- Families Healing Together Support Group
- Birth Mother Panels

35



Marissa.Lang@proofalliance.org

Youth Support Groups

- Baxter's Support Group (age 15 – 21)
- Skillz Group (age 11 - 15)
- Let's Talk About My FASD
- Youth Action Team (age 15 – 21)
- Adulting 101 (age 16+)

36

Proof Alliance Resources

- Public awareness & prevention
- Community grants & partners
- Family engagement & support
- Diagnostic clinic & screening
- Youth & young adult program
- Public policy work
- Professional education
- Proof Alliance website resources



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37



PR%F Alliance

Website: www.ProofAlliance.org
Email: info@ProofAlliance.org
Phone: 651.917.2370
Address: 1876 Minnehaha Ave W
 St. Paul, MN 55104

38