Association of Reproductive Health Professionals

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What You Need to Know
Facts about Fetal Alcohol Spectrum Disorders (FASDs)

Alcohol is a teratogen, which is a substance that causes developmental malformations in an embryo or fetus. Alcohol passes from the maternal blood to the fetal blood. Because the placenta does not filter alcohol, the concentration in the fetus is nearly equal that in the pregnant woman.[1]

The only way to ensure prevention of the teratogenic effects of alcohol is complete avoidance during pregnancy and periods of potential conception. Alcohol can adversely affect the fetus throughout pregnancy, including the earliest phase when a woman may not realize she is pregnant. The higher the level of alcohol consumption, the greater the risk to the developing fetus. [2,3]

Defining FASDs

Fetal alcohol spectrum disorders (FASDs) is an umbrella term used to describe the constellation of effects seen in individuals with prenatal exposure to alcohol. Four diagnoses fall under the umbrella of FASDs, reflecting the continuum of effect from moderate to severe[4]:

Diagnosis		Growth	FAS Face	CNS		Alcohol
1. FAS	Fetal Alcohol Syndrome	growth	face	severe		alc (or unk)
2. PFAS	Partial FAS		face	severe		alc
3. SE/AE*	Static Encephalopathy / Alc Exposed			severe		alc
4. ND/AE	Neurobehavioral Disorder / Alc Exposed				moderate	alc

** Alternate nomenclature includes "Alcohol Related Neurodevelopmental Disorder (ARND)" or "Neurodevelopmental Disorder-Prenatal Alcohol Exposed (ND-PAE)"*
Characteristics of FASDs

Individuals with full Fetal Alcohol Syndrome (FAS) present with a unique cluster of facial anomalies, growth deficiency, and structural and/or severe functional central nervous system (CNS) impairment. , The graphic below shows three children (Native American, Caucasian, and African American) with the full facial features of FAS.[7]

*Health Matters*is a publication of ARHP for the general public that provides a brief overview of existing facts and data on various topics related to reproductive health.

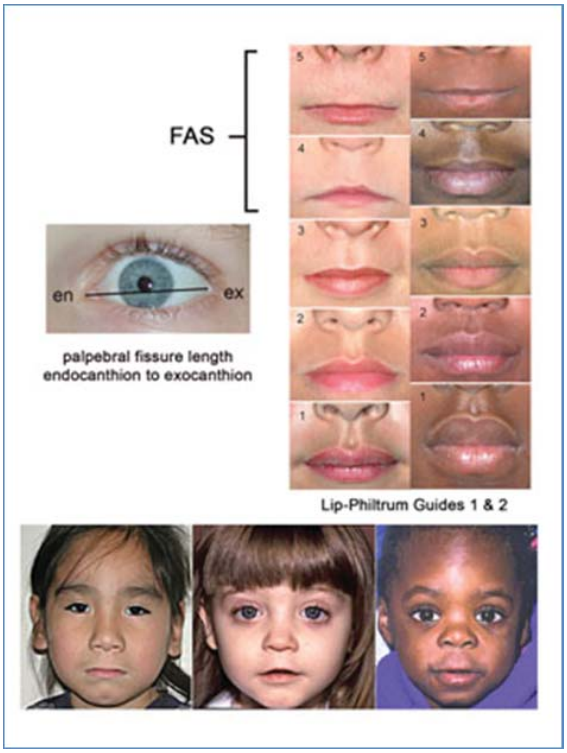

Table: FASD Characteristics[1,2,6,7]	
Characteristic	**Features**
Abnormal facial features	Small eyes (palpebral fissure length < 2nd percentile)
	Smooth philtrum (i.e., the vertical groove between the nose and upper lip)
	Thin upper lip (Rank 4 or 5 on the Lip-Philtrum Guide)
Growth impairment	Head circumference ≤3rd percentile
	Height ≤10th percentile
	Weight ≤10th percentile
CNS structural and/or functional abnormalities impairment	Abnormal brain structure(s)
	Seizure disorder
	Poor coordination
	Hyperactive behavior
	Difficulty with attention
	Difficulty in school
	Learning disabilities
	Intellectual disability or low IQ
	Poor reasoning, judgment, planning, and organizational skills
	Poor adaptive (daily living) skills
	Motor and sensory abnormalities
	Sleep and sucking problems as infant

Risk factors for FASDs

- All women are at risk, regardless of race or socioeconomic status.[5]
- Genetic differences make some children especially vulnerable to the damaging effects of alcohol. Twin studies have shown that non-identical twins exposed to the same level of alcohol can have different outcomes.[4,8]
- The goal of the Surgeon General's Advisory, which states there is no known safe amount to drink during pregnancy, is to protect all children, including the most vulnerable.[2]

Key counseling messages

- When you drink alcohol, so does your baby.
- All types of alcohol can adversely affect the fetus, including beer, wine, and hard liquor.[1]
- There is no known safe amount of alcohol during pregnancy.
- Because the fetal brain continues to develop throughout a pregnancy, there is no safe time for a woman to drink.
- If you have been drinking during your pregnancy, you can still reduce the risk to your baby by cutting back or eliminating your alcohol consumption. It is never too late to stop.

Key counseling strategies

When counseling woman, clinicians should consider the two basic strategies for preventing FASDs: (1) avoiding alcohol during pregnancy and (2) avoiding pregnancy when drinking.

Healthcare providers should:

- Provide counseling for effective family planning
- Advise refraining from drinking alcohol during the preconception period
- Counsel women to abstain from alcohol during pregnancy
- Provide referral for treatment of alcohol use disorders if needed

Screening tools

Clinicians can use the TWEAK questionnaire to screen nonpregnant women for problems with alcohol use.[9] In pregnant women, any amount of drinking is considered a positive result.

Tolerance: How many drinks can you hold without falling asleep or passing out? (≥6=2 points)
Worried: Have friends or relatives worried about your drinking? (yes=2 points)
Eye-opener: Do you sometimes take a drink in the morning when you first get up? (yes=1 point)
Amnesia: Have friends or relatives told you about things you said or did while drinking that you could not remember? (yes=1 point)
Cut down: Do you sometimes feel the need to cut down on your drinking? (yes=1 point)

In a nonpregnant woman, an answer of ≥ 6 to the first question or a total score of ≥3 indicates a problem with alcohol use and a need for further assessment.

Brief motivational interviewing

A brief motivational interview (BMI) is a form of intervention. The goal of BMI is not to persuade a patient to change behavior; rather it is to enhance her motivation through supportive listening. Patients may require many BMIs to be ready to make a change.

This is a sample 4-step brief motivational interview process for addressing alcohol use during pregnancy [10]:

1. **Raise the subject.** Ask, "are you willing to spend a few minutes discussing your alcohol use?"
2. **Provide feedback.** Review the results of the screening test and help the patient see the connection between alcohol use and her pregnancy. Show recommended guidelines for responsible alcohol use and review the consequences of prenatal alcohol exposure.
3. **Assess readiness to change.** Ask, "on a scale of 1 to 10, how motivated are you to change your drinking behavior?" If she is ready, move to step 4. If she is not ready, inquire about why and what factors might make her more ready.
4. **Negotiate and advise.** For patients who indicate readiness to consider changing behavior ask, "what would you like to do next?" Consider a written agreement outlining new behaviors (a commitment to herself). Provide written materials on ways to decrease intake and offer referrals for self-help groups such as Alcoholics Anonymous or private counselors.

One message: four scenarios

The single message for FASDs prevention is "**no amount of alcohol is safe during pregnancy.**" With this one message, there are at least four clinical scenarios in which women require counseling about alcohol in pregnancy. The table below details the counseling approach for each.

Scenario	Counseling approach
Preconception counseling or family planning	• Educate about alcohol risks in pregnancy • Consider contraceptive method • Encourage adoption of health behaviors before pregnancy
Prenatal care for light drinkers who were unaware of the need to avoid alcohol	• Educate about alcohol risks in pregnancy • Provide perspective about past drinking • Encourage health behaviors
Prenatal care for moderate to heavy drinkers who desire to continue drinking	• Educate about alcohol risks in pregnancy • Provide perspective about past drinking • Emphasize importance of stopping (or reducing if not willing to stop) • Assess readiness • Encourage health behaviors
Prenatal care and assessment for women with alcohol use disorder	• Educate about alcohol risks in pregnancy • Encourage health behaviors • Emphasize importance of stopping (or reducing if not willing to stop) • Assess readiness • Refer to addiction specialist for evaluation and treatment

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