

# Alcohol Use in Pregnancy: A Public Health Problem

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Alcohol consumption during pregnancy remains a significant public health problem. Prenatal exposure to alcohol can damage the developing fetus and is a leading preventable cause of birth defects and developmental disabilities.<sup>1</sup> Fetal alcohol spectrum disorders (FASDs) is an umbrella term used to describe the range of physical, mental, behavioral, and learning disabilities that can occur, many with lifelong implications.<sup>2</sup> Fetal alcohol syndrome (FAS), one of the most severe disorders along the spectrum, occurs in 0.5 to 2 cases per 1,000 births in the United States. However, it is estimated that for every child born with FAS, three additional children suffer from the milder forms of FASDs: fetal alcohol effects (FAE); alcohol-related neurodevelopmental disorder (ARND) and alcohol-related birth defects (ARBD). These children may manifest lifelong neurocognitive and behavioral problems arising from early alcohol exposure.<sup>3</sup>

Pregnancy offers an important opportunity to intervene and to reduce a woman's alcohol use. For many women, pregnancy appears to be a time of increased motivation to reduce or eliminate unhealthy behaviors that include alcohol consumption.<sup>4</sup> Unfortunately, women who abuse alcohol often begin prenatal care after the first trimester.<sup>5</sup> This late entry to prenatal care means that alcohol may have already caused fetal damage.

In 1981, the Office of the Surgeon General published its first public health advisory regarding the dangers of drinking during pregnancy. In 2005, the US Surgeon General issued an updated *Advisory on Alcohol Use in Pregnancy*, advising women not to drink alcohol if they are pregnant, planning pregnancy, or at risk of becoming pregnant. No safe level of alcohol consumption has been identified, and no period during pregnancy appears to be safe for alcohol consumption.<sup>3</sup>

Despite public health advisories and efforts to disseminate this information, recent data indicate that significant numbers of women continue to drink during pregnancy. While the overall rate of any alcohol use (at least one drink) among pregnant women has

declined since 1995, frequent (7 or more drinks per week) and binge (5 or more drinks on any one occasion) drinking continues to occur. One in seven women of childbearing age (18 to 44 years of age) engages in “risk drinking” (7 or more drinks per week, or 5 or more drinks on any one occasion). In Pennsylvania, 2005 data indicated that 56% of women of childbearing age had at least one drink in the past 30 days, and 15% had engaged in binge drinking. This is a concern because if a woman is pregnant and does not yet know it, she risks causing fetal damage during the first trimester, a critical period of early organogenesis.<sup>6</sup>

Because women may not be aware they are pregnant initially, it is important to screen all women of childbearing age to prevent a potential alcohol-exposed pregnancy. Screening may take place in a variety of settings: a primary care visit; family planning or gynecologic visits; community health centers; nutrition programs; and the first prenatal visit. Using a validated screening tool, such as T-ACE 7 (74% sensitive, 71% specific for “risk drinking”), Chang concluded that the T-ACE outperformed standard queries by health care providers in detecting use of alcohol.<sup>7</sup> It takes about one minute to ask the T-ACE questions. A score of two or more points indicates that intervention is needed.

### **T-ACE Alcohol Use Screening TOOL**

**Tolerance:** How many drinks does it take to make you feel high?  
(>2 drinks = 2 points)

**Annoyed:** Have people annoyed you by criticizing your drinking?  
(yes = 1 point)

**Cut down:** Have you ever felt you ought to cut down on your drinking?  
(yes = 1 point)

**Eye-opener:** Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover?  
(yes = 1 point)

There is strong evidence that brief behavioral counseling interventions for risky drinking by both pregnant and reproductive age women reduce the risk of alcohol-exposed pregnancy.<sup>8,9</sup> The FRAMES model<sup>10</sup> has successfully helped clinicians deliver brief interventions

## **FRAMES: Brief Intervention Model for Risky Drinking**

**Feedback:** Compare the patient's level of drinking with drinking patterns that are not risky. She may not be aware that what she considers normal is actually risky.

**Responsibility:** Stress that it is her responsibility to make a change.

**Advice:** Give direct advice (not insistence) to change her drinking behavior.

**Menu:** Identify risky drinking situations and offer options for coping.

**Empathy:** Use a style of interaction that is understanding and involved.

**Self-efficacy:** Elicit and reinforce self-motivating statements such as, "I am confident that I can stop drinking." Encourage the patient to develop strategies, implement them, and commit to change.

A recent study by O'Connor<sup>9</sup> randomized 250 pregnant women drinkers to either a Brief Intervention (BI) or Assessment Only (AO) group. The setting was a WIC center and the intervention was 10-15 minutes/month by a nutritionist. The BI group was five times more likely to be abstinent in the third trimester. Also, infants born to the BI group had higher birth weights and lengths, and had three times lower adverse fetal outcome (1 vs. 4). This study further illustrated that the intervention does not have to be carried out by a clinician to be effective.

The Department of Pediatrics at Thomas Jefferson University operates an addiction program, *Maternal Addiction Treatment Education and Research (M.A.T.E.R.)*, which aims to assist pregnant women who are struggling with substance abuse, including alcohol dependence. Programs include an outpatient treatment program (Family Center), as well as a residential treatment program (My Sister's Place). Some of the services provided at both locations include medical and obstetrical services; 12-step meetings; individual, group, and family psychotherapy; specialized groups on women's issues; and a parenting support group.

M.A.T.E.R. is located at 1201 Chestnut Street (11th floor) and can be reached by calling 215-955-8577.

For more resources or information, please contact the author at:  
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