FETAL ALCOHOL SPECTRUM DISORDERS (FASDs)
An Ounce of Prevention

NC Child Fatality Task Force
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FASD in NC
Think Before You Drink
Promoting Alcohol-Free Pregnancies
The North Carolina Fetal Alcohol Prevention Program (FASDinNC) strives to prevent alcohol exposed pregnancies by providing training, education, and resources to women of childbearing age and the professionals that serve them.
FETAL ALCOHOL SPECTRUM DISORDERS (FASDs)  
An Ounce of Prevention

• Defining FASDs
• Statistics
• Impact of Alcohol Use
• Scope of the Issue: Alcohol
• CDC Recommendations
• Addressing FASDs in NC
• Charge for Prevention
Fetal Alcohol Spectrum Disorders (FASDs):
A spectrum of conditions that can occur in an individual who exposed to alcohol during pregnancy. An individual can have a range of serious, lifelong problems which can include:

- Delayed Development
- Hyperactivity
- Intellectual and Learning Disabilities
- Executive Functioning Challenges
- Behavioral Problems

http://www.nofas.org/recognizing-fasd/
Impact of Alcohol Use

Alcohol use during pregnancy can lead to lifelong effects.

Up to 1 in 20 US school children may have FASDs.

People with FASDs can experience a mix of the following problems:

**Physical issues**
- low birth weight and growth
- problems with heart, kidneys, and other organs
- damage to parts of the brain

**Behavioral and intellectual disabilities**
- learning disabilities and low IQ
- hyperactivity
- difficulty with attention
- poor ability to communicate in social situations
- poor reasoning and judgment skills

**Lifelong issues with**
- school and social skills
- living independently
- mental health
- substance use
- keeping a job
- trouble with the law

Which leads to...

These can lead to...

Drinking while pregnant costs the US $5.5 billion (2010).

Alcohol consumption during pregnancy has wide-reaching effects. In addition to the more typically seen FASD outcomes, many other adverse pregnancy and birth outcomes have been linked to prenatal alcohol exposure.

Existing studies suggest that drinking during pregnancy may increase the risk of miscarriage, stillbirth, preterm delivery, and Sudden Infant Death Syndrome (SIDS).

Alcohol is a Teratogen

Teratogen:
“any agent, substance or occurrence which can induce abnormalities of development in the developing embryo or fetus”

Prenatal exposure to teratogens can cause:
- Premature Birth
- Pre & Postnatal Growth Restriction
- Physical Malformations
- Sudden Infant Death Syndrome (SIDS)
- Cognitive and Behavioral Problems
Critical Periods in Human Development

NC PRAMS Knowledge of Pregnancy: 46% (5–8 wks) 16.3% (9+ wks.)

Source: NC PRAMS, 2011
A Critical Point of Vulnerability

Embryo Between 17 – 22 days old = (Woman 3 – 4 Weeks Pregnant)

Source: Natalie Novick Brown, PhD, FASDExperts.com
Impact of Alcohol Use

Sudden Infant Death Syndrome

- Infants born to women who smoked tobacco during pregnancy are 3 times more likely to die from SIDS.
- Infants born to women who used cocaine during pregnancy are 3–4 times more likely to die from SIDS.
- Infants born to women who drank alcohol during pregnancy are 6–8 times more likely to die from SIDS.
## Substance Exposed Pregnancies

<table>
<thead>
<tr>
<th></th>
<th>Alcohol</th>
<th>Opioids, including Heroin</th>
<th>Marijuana</th>
<th>Tobacco</th>
<th>Cocaine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subnormal IQ</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
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</tr>
<tr>
<td>Developmental delays</td>
<td>x</td>
<td>No consensus</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Sensory deficits</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
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<tr>
<td>Fine motor deficits</td>
<td>x</td>
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<tr>
<td>Attention deficits</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td>No consensus</td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td>No consensus</td>
</tr>
<tr>
<td>Birth Defects</td>
<td>x</td>
<td></td>
<td>No consensus</td>
<td></td>
<td></td>
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<tr>
<td>Neonatal withdrawal</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Prematurity</td>
<td>x</td>
<td></td>
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</tbody>
</table>

*Behnke 2013

Just last week, The Centers for Disease Control and Prevention (CDC) released the following:

More than 3.3 Million US women are at risk of exposing their developing baby to alcohol.

3 in 4 women who want to get pregnant as soon as possible report drinking alcohol

Among pregnant women, the highest estimates of reported alcohol use were among those who were:
- 35 – 44 years old
- College graduates
- Not married
North Carolina Pregnant Women (18 – 44 years)

- 53.9% Drank alcohol three months prior to pregnancy.
- 7.5% Drank alcohol during the last three months of pregnancy.
- 13.1% Did not change their alcohol consumption from before pregnancy, during pregnancy.
- 39.5% Reported Binge drinking at least one time, three months prior pregnancy.

Source: NC PRAMS, 2011
Why Women Continue to Drink?

- Women are receiving mixed messages
  - Primary Care Providers
  - Social Media
  - Targeted by Alcohol Industry
  - Support System/Peers
  - Cultural Influence
- Lack of knowledge about alcohol & binge drinking
- Alcohol message/warning not being paired with Life Planning/BC consult
- Limited signage warning pregnant women about the dangers of alcohol use. (ABC stores Only)

2015 cdc.gov/vitalsigns
FASDinNC
### CDC Recommendations

**Drinking too much can have many risks for women.**

**For any pregnant woman and baby:**
- miscarriage
- stillbirth
- prematurity
- fetal alcohol spectrum disorders (FASDs)
- sudden infant death syndrome (SIDS)

**For any woman:**
- Injuries/violence
- heart disease
- cancer
- sexually transmitted diseases
- fertility problems
- unintended pregnancy

<table>
<thead>
<tr>
<th>PREGNANT</th>
<th>NON-PREGNANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>any alcohol use by women who are pregnant or might be pregnant</td>
<td>binge drinking (4 or more drinks within 2-3 hours)</td>
</tr>
<tr>
<td>8 or more drinks per week (more than 1 drink on average per day)</td>
<td>any alcohol use by those under age 21</td>
</tr>
</tbody>
</table>

[www.cdc.gov/vitalsigns/fasd]
Doctors, nurses, or other health professionals should screen every adult patient, including pregnant women, and counsel those who drink too much. Providers can help women avoid drinking too much, including avoiding alcohol during pregnancy, in 5 steps.

1. Assess a woman’s drinking.
   - Use a validated screener (e.g., AUDIT (US)).
   - Take 6-15 minutes to explain results and provide counseling to women who are drinking too much.
   - Advise her not to drink at all if she is pregnant or might be pregnant.
   - Come up with a plan together.

2. Recommend birth control if a woman is having sex (if appropriate), not planning to get pregnant, and is drinking alcohol.
   - Review risk for pregnancy and importance of birth control use.
   - Discuss full range of methods available.
   - Encourage her to always use condoms to reduce risk of sexually transmitted diseases.

3. Advise a woman to stop drinking if she is trying to get pregnant or not using birth control with sex.
   - The best advice is to stop drinking alcohol when you start trying to get pregnant.
   - Discuss the reasons to stop alcohol use before the woman realizes she is pregnant.

4. Refer for additional services if a woman cannot stop drinking on her own.
   - Provide information on local programs or go to SAMHSA treatment locator. www.findtreatment.samhsa.gov
   - Consider referral to treatment or recommend Alcoholics Anonymous. www.aa.org

5. Follow up yearly or more often, as needed.
   - Set a time for return appointment.
   - Continue support at follow-up.

*Learn how to do alcohol screening and counseling at www.cdc.gov/ncbddd/fasd/alcohol-screening.html.


FASDinNC.org
Fullerton Genetics/Mission Health
Identification & Intervention

FASD Clinic Fullerton Genetics/Mission Health
9 Vanderbilt Park Drive, Asheville, NC 28803
Dr. William Allen and Dr. Chad Haldeman–Englert
Contact: Michael Pesant, FASD Clinic Coordinator
michael.pesant@msj.org

Carolinas Healthcare System
4501 Cameron Valley Parkway
Charlotte, NC, 28211
704–403–2626
704–403–2699
Dr. Yasmin Senturias
Contact: Rhonda Hartsell
rhonda.hartsell@carolinash Heathcare.org

* Both require a referral from child’s medical home/form
Mission Statement

The mission of the NC Collaborative on Fetal Alcohol Spectrum Disorders (NCC–FASDs) is to:

◦ Increase awareness of the harm caused by alcohol use during pregnancy
◦ Ensure access to early identification, support and interventions to those affected by an FASD
◦ Reduce the social and economic impact of FASDs in North Carolina

If you would like to learn more about NCC–FASDs, contact the following:

Becky Brantley
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When a pregnant woman drinks alcohol, so does her baby. Therefore, it's in the child's best interest for a pregnant woman to simply not drink alcohol.

U.S. Surgeon General Richard H. Carmona, 2005

The American Congress of Obstetricians and Gynecologist (ACOG) states that children exposed to alcohol in utero are at risk for growth deficiencies, facial deformities, central nervous impairment, behavioral disorders, and impaired intellectual development.

www.acog.org – 2008

The American Academy of Pediatrics (AAP) identifies prenatal exposure to alcohol as the leading preventable cause of birth defects and intellectual and neurodevelopmental disabilities in children.

www.aap.org – 2015
Goals for Prevention and Increased Awareness

- Place warning signage at ALL points of sale of alcohol in North Carolina.
- Promote the FASD prevention message to care providers who provide services to women of child bearing age.
- Promote the FASD Pediatric Toolkit to increase the awareness of FASDs and the importance of early identification.
- Deliver trainings and increase messaging on the prevention of alcohol exposed pregnancies to female college students in NC.
- Work with the NC Collaborative on FASDs to increase awareness, increase diagnostic capacity and intervention strategies within our state.
Your Charge for Prevention

- Take the opportunity to talk about alcohol use with everyone, especially women of childbearing age!

- Pair the alcohol message with any discussions related to life planning/pregnancy prevention.

- Increase your awareness of alcohol trends, the impact of environmental factors and the need for policy change.

- Continue to support local and state efforts that are addressing the alcohol related issues, such as:
  - Underage Drinking in NC
  - Perinatal Substance Use
  - Fetal Alcohol Spectrum Disorders
Resources

- www.FASDinNC.org
- www.cdc.gov/VitalSigns/Fasd/infographic.html
- www.nofas.org
- www.womenandalcohol.org
- www.fasdcenter.samhsa.gov
- www.aap.org
- www.acog.org
- www.everywomansoutheast.org
- www.marchofdimes.org/northcarolina
- www.mothertobabync.org
- www.reddit.com
An Ounce of Prevention is Worth a Pound of Cure

- Benjamin Franklin

FASDs is 100% Preventable!

Thank you!