

HANDBOOK ON
ALCOHOL, TOBACCO, AND
OTHER DRUG EFFECTS
ON
WOMEN AND FETAL DEVELOPMENT

In partnership with

Why Is This Perinatal Program Needed?

Women face many difficult decisions in life, none more important than the care of their unborn baby while they are developing in the womb. Even before a planned or unplanned pregnancy, women must clearly understand that unhealthy decisions made prior to their baby's birth could lead to potential negative consequences for the future arrival of their baby. A clear example of this is that women who smoke or use tobacco products, drugs and/or alcohol prior to a pregnancy may have difficulty discontinuing their use once they find out they are pregnant. Additionally, when one examines the facts regarding perinatal drug and alcohol use, abuse, and addiction, it further demonstrates why this program is so important.

Facts:

- 13-22% of women and girls in the United States smoke while pregnant
- Women who smoke increase their risk for infertility, ectopic pregnancy (pregnancy outside of the uterus), spontaneous abortion, and stillbirth
- Tobacco use is responsible for approximately 22-41% of deaths from Sudden Infant Death Syndrome (SIDS) annually
- Each year, as many as 40,000 babies are born in the United States with a Fetal Alcohol Spectrum Disorder (FASD); Fetal Alcohol Syndrome (FAS), Fetal Alcohol Effects (FAE), Alcohol-Related Neurodevelopmental Disorder (ARND), and Alcohol-Related Birth Defects (ARBD)
- 44% of women who drink heavily during pregnancy will have a child with Fetal Alcohol Syndrome
- There is no safe amount of alcohol during pregnancy; **WHAT THE MOM DRINKS, THE BABY DRINKS**
- In Pennsylvania, 19.1% of women of childbearing age reported binge drinking in the past month, compared to 13.1% overall in the United States
- The National Council on Alcoholism and Drug Dependence national survey indicates that marijuana was used during pregnancy by 3% of women (119,000), cocaine by 1.1% (45,000), and a psychotherapeutic medication without physician orders by 1.5% (61,000 women). Crack was the form of cocaine use most frequently reported
- According to the Office of Health and Human Services, upwards of 75% of all perinatally-acquired HIV infections are secondary to intravenous drug use by an infected mother or her sexual partner.

Alcohol

Women who drink during pregnancy place themselves at risk for having a child with FAS or fetal alcohol spectrum disorders.

Fetal Alcohol Spectrum Disorders (FASD)

has become recognized as the leading cause of cognitive disability in U.S.

- Fetal Alcohol Syndrome (FAS)
- Fetal Alcohol Effect (FAE)
- Alcohol Related Birth Defects (ARBD)
- Alcohol-Related Neurodevelopment Disorders (ARND)

- Light drinking has an effect on learning and growth; there is no known safe amount of alcohol to drink while pregnant nor a safe time to drink

Characteristics of FASD

- Attention deficits, impulsivity, hyperactivity
- Poor sleeping patterns
- Poor social skills
- Inconsistent performance
- Poor judgment
- Easily influenced by peers
- Explosive response to changes
- Ability to repeat rules, but not practice them
- A general cluelessness
- Many individuals with FASD are smaller than their peers; some have distinctive facial characteristics. However, brain damage can be extensive even if the facial features are minimal or not present.

Source: * DOUBLEARC.ORG

* [National Organization on Fetal Alcohol Syndrome NOFAS.ORG](http://NationalOrganizationonFetalAlcoholSyndromeNOFAS.ORG)

* cdc.gov/ncbddd/fas/default.htm

Most girls are 2-3 months pregnant before they find out. Therefore, 20% of babies have been exposed to multiple binges in high level of alcohol in the first trimester, before the girl even knew she was pregnant.

Even brief exposures to small amounts of alcohol may kill brain cells in a developing fetus.

Source: Fetal Alcohol Disorders Society
acbr.com/fas/toc2.htm

Alcohol Damage To The Fetus

- Damage varies due to:
- * volume ingested
 - * timing during pregnancy
 - * peak blood alcohol levels
 - * genetics
 - * environmental factors

Potential Mild End Damage

- Loss of some intellectual functioning (IQ)
- Visual problems
- Higher than normal pain tolerance

VS.

Potential Severe End Damage

- Severe loss of intellectual potential
- Several vision problems
- Dyslexia
- Serious maxilo-facial deformities
- Dental abnormalities
- Heart defects
- Immune system malfunctioning
- Behavioral problems
- Attention deficit disorders
- Hyperactivity
- Extreme impulsiveness
- Poor judgment
- Little or no retained memory
- Deafness
- Little or no capacity for moral judgment or empathy
- Sociopathic behavior
- Epilepsy
- Tremors
- Cerebral palsy
- Renal failure
- Heart failure
- Death

Source: Fetal Alcohol Disorders Society
acbr.com/fas/toc2.htm

FETAL ALCOHOL SPECTRUM DISORDERS ARE 100% PREVENTABLE

* Fetal Alcohol Spectrum Disorders Center (FASD)
fasdcenter.samhsa.gov

FASD is an umbrella term describing the range of effects that can occur in an individual whose mother drank alcohol during pregnancy. These effects may include:

- physical
- mental
- behavioral and/or learning disabilities with possible lifelong implications

40,000 FASD BABIES BORN IN U.S. ANNUALLY

(1) FAE (Fetal Alcohol Effects)

Used to describe behavioral and cognitive problems in children who were prenatally exposed to alcohol, but who do not have all of the typical diagnostic features of FAS.

(2) ARND (Alcohol Related Neurodevelopmental Disorder)

Functional or mental problems linked to prenatal alcohol exposure (behavioral or cognitive deficits, or both); i.e.:

- learning difficulties
- poor school performance
- poor impulse control
- difficulties with mathematical skills, memory, attention, judgment, or combination of these

(3) ARBD (Alcohol Related Birth Defects)

Can have problems with:

- heart
- kidneys
- bones
- hearing
- or a combination of above

NOTE: Unlike people with FAS, those with FAE, ARND, or ARBD do not show the identifying physical characteristics and, as a result, often go undiagnosed.

Source: Center For Disease Control
cdc.gov/ncbddd/fas/faqs.htm

(4) Fetal Alcohol Syndrome (FAS)

Pattern of malformations and disabilities in the baby resulting from a pregnant woman drinking during pregnancy.

- When a pregnant woman drinks, so does her baby. If a woman is drinking during pregnancy, it is never too late to stop. Now is the time.
- There is no known safe amount of alcohol to drink while pregnant nor a safe time to drink if pregnant. Alcohol in any amount should not be used when pregnant. This includes any and all drinks or products containing alcohol.

- Social drinking (1-2 drinks) can produce an increase in miscarriages, stillbirths, low birth weight, and behavior abnormalities in the baby which can persist into adulthood.

Potential Consequences To Baby If Alcohol Is Used During Pregnancy

- Small brain size
- Low IQ
- Weak sucking reflex
- Exaggerated startle response
- Poor wake and sleep patterns
- Temper tantrums
- Poor social skills
- Poor abstracting abilities
- Central Nervous System problems
- Premature birth
- Low birth weight
- Hearing and vision problems
- Growth deficits
- Motor skills problems
- Hyperactivity
- Memory, attention, and judgment problems
- Language problems
- Difficulties in school
- Deformities of head and face

Fetal Alcohol Syndrome (FAS) is the leading cause of mental retardation in the United States.

The good news is that FAS is 100% preventable.

Tobacco

- Recent evidence suggests that smoking may damage the ovaries and affect hormonal release vital to the control of menstruation and pregnancy.
- There seems to be an earlier age of onset of menopause in women smokers, possible as a result of such damage.
- One of the major fetal toxins in cigarette smoke is carbon monoxide. Carbon monoxide reduces oxygen delivery in the blood and causes hypoxia, which in turn causes serious problems in the developing tissues and organs of the fetus.
- Nicotine contained in tobacco is a stimulant to the fetus, increasing the heart and further affecting oxygen circulation.
- Other possible dangers of cigarette smoking during pregnancy include miscarriage, premature birth, and greater risk of Sudden Infant Death Syndrome (SIDS).
- Decreased birth weight is also well documented among offspring of mothers who smoke.
- Children of smokers are also much more likely to smoke themselves.
- Only about 20% of women who smoke quit during pregnancy

Cocaine

According to the National Institute on Drug Abuse (NIDA), 23 million Americans have tried cocaine at least once, 5,000 try it daily, and there are 9 million regular users.

Cocaine is reported to be the most powerful stimulant to the central nervous system. Crack is the latest form of cocaine, a free-based cocaine in crystalline form, pre-processed and pre-packaged to sell for \$10 - \$30 per vial.

Recently surveys have found that teenage use of cocaine is at an epidemic level. Additionally, added to this is the fact that there are one million adolescent pregnancies each year, resulting in 470,000 live births.

To better understand the effects of cocaine on the unborn, we would ask that you examine the following facts regarding cocaine and pregnancy from the Perinatal Center for Chemical Dependence on Northwestern Memorial Hospital in Chicago, Illinois:

- Cocaine exposed babies are more likely to die before birth or to be born prematurely.
- Cocaine exposed babies tend to be abnormally small for their age and at birth and have smaller than normal heads and brains.

- Cocaine exposed babies face an increased risk of deformities of the genital and urinary organs, including kidney malformations that can lead to life-threatening infections.
- Cocaine exposed babies also face a tenfold increase in the risk of crib death.
- A single cocaine “hit” during pregnancy can cause lasting fetal damage because while a single dose of cocaine clears an adult’s body within 40 hours, an unborn baby is exposed for four or five days.
- Cocaine exposed babies are often born with a very fragile, easily overloaded nervous system. They tend to be hypersensitive and irritable, screaming inconsolably at the slightest provocation.
- Cocaine induced strokes happen to babies because cocaine causes a sudden increase in fetal blood pressure. The baby’s heart rate rises dramatically and remains elevated for hours. A stroke that cuts off circulation to the small intestine can cause the gut to atrophy, making it impossible for the baby to digest food after birth. It takes only one “hit” of cocaine to cause a stroke in the baby before or just after birth.
- Cocaine use can cause the placenta to pull away from the wall of the uterus before labor begins. This condition, abruptio placentae, can lead to extensive bleeding and can be fatal for both the mother and her baby.
- Babies born addicted to cocaine show signs of neurological disorder such as irritability, tremors, and muscle stiffness. Low birth weight, poor sucking reflex, and diarrhea can also be present.

Tranquilizers

- Maternal use during pregnancy of common tranquilizers has been linked with increased risk of congenital malformations in the newborn. Babies born to heavy benzodiazepine users are more likely to have cleft lip and palate abnormalities.

Analgesics (Pain Remedies)

- Analgesics are often taken by pregnant women to treat symptoms such as headaches and backaches. The two most commonly contained in analgesic preparations are ASA (acetylsalicylic acid) and acetaminophen.
- ASA, if taken only occasionally and according to package directions, does not appear to have adverse effects on the fetus. However, ASA should not be used in late pregnancy and especially not during the week before delivery, except with the consent of your physician, since it alters normal blood clotting processes and could increase the risk of bleeding in mother and/or baby immediately after birth.
- Acetaminophen is usually considered safe if taken only occasionally and according to package directions.

Marijuana

- Marijuana use can dramatically increase heart rate and blood pressure. When the heart rate is increased, the heart needs additional oxygen. Marijuana increases the amount of carbon monoxide in the blood, which decreases the amount of oxygen delivered to the heart.
- In women who use marijuana regularly, the drug seems to cause menstrual irregularities such as anovular cycles; menstrual cycles in which the menstrual flow is not preceded by ovulation.

Opiates

- Use of opiates increase risk of miscarriage to almost twice the normal rate.
- Excessive bleeding during delivery, breech births, and stillbirths are also most common among maternal opiate users.
- Babies born to women who use opiates are addicted to opiates themselves and suffer from terrible withdrawal symptoms after birth.
- Neo-natal withdrawal symptoms from heroin or morphine include high-pitched crying, irritability, sweating, mental disturbances and convulsions, sleeplessness, vomiting, and diarrhea.
- The respiratory depression caused by opiates in adults also affects the fetus and the newborn child. Pneumonia, tachypnea (rapid breathing), and other forms of respiratory distress are all common in babies born to opiate users.
- Indirect problems related to opiate use include poor maternal (and thus fetal) nutrition, polydrug abuse, poor health care, and the serious risks of prenatal infection of AIDS, venereal diseases, or other infections transmitted through needles or prostitution.
- Approximately 9,000 children are born addicted to heroin in the United States every year.
- Heroin, methadone and morphine readily cross the placenta. Consequently, the fetus may become addicted to them and may have withdrawal symptoms 6-8 hours to 8 days after birth.

Some drugs should not be taken during breastfeeding. Once again, it is strongly recommended that women maintain strong communication with their physician before, during, and after pregnancy. Do not be afraid to ask questions of your physician about your health and your baby's.

Antacids

- Heartburn is a common problem in pregnancy. Most antacids, when used according to package directions, do not appear to have a harmful effect on the fetus. However, larger doses of some antacid preparations, especially if taken over prolonged periods of time, may disturb the salt balance of the fetus.

Antidiarrheals

- Generally speaking, preparations available for self-medication act within the intestine to provide relief of the diarrhea, but they do not treat the cause of the diarrhea. Among the most useful of these Antidiarrheal preparations are kaolin-pectin combinations, which are considered safe for short-term use in pregnancy when used according to the label directions.

Antiemetics (Antinauseants)

- Morning sickness is a common complaint during the first trimester of pregnancy. Antiemetic drugs will usually relieve nausea and vomiting. Over-the-counter products containing dimenhydrinate are generally considered safe for use during pregnancy. Before using any antiemetic, however, you should check with your physician.

Caffeine

- Recently, concern has increased that caffeine, taken in large quantities by the pregnant woman, may harm the fetus. Therefore, most physicians agree that caffeine intake should be decreased during pregnancy.

Cold Remedies/Antihistamines

- Many cold remedies available usually contain more than one of the following classes of drugs: analgesics, decongestants, bronchodilators, and antihistamines. Since there is limited information available about the effect of some of these on the fetus, the use of cold remedies should be avoided during pregnancy.

Laxatives

- Constipation is a common complaint in pregnancy and if it is troublesome, your doctor may recommend some measures you may take.
- Products that are not absorbed into your system are often recommended. Bulk-forming laxatives such as those containing psyllium, and detergent-based (emollient) products which act by softening stools, are in this category.
- However, laxatives containing substances such as phenolphthalein, cascara, senna, or rhubarb are absorbed. These preparations, as well as laxatives based on magnesium salts, should be avoided during pregnancy unless specifically ordered by your physician.

Vitamins

- A good balance of vitamins is very important and most of the daily requirement is available through a well-balanced diet. Too much or too little of certain vitamins may harm the fetus. For example, Vitamins A and D may be dangerous if taken in excess of labeled directions. Therefore, before using any vitamin preparations during your pregnancy, you should consult with your physician about your need for vitamins and appropriate vitamin preparations. You should also ask your physician for advice about foods that contain high amounts of vitamins.

Miscellaneous Products

- Many house products (certain paints, volatile oven cleaners, and garden fertilizers) may have harmful effects on the fetus if they are inhaled in high concentrations. You should, therefore, avoid them or use them cautiously during pregnancy.

Why Should I Talk To My Physician?

Not every medication poses a risk to your unborn baby. However, some do. That's why it is important that you are completely honest in discussing your intake or planned intake of alcohol, tobacco, over-the-counter drugs, and other drugs of abuse with your physician. Alcohol in any amount can be harmful, as well as the use of any tobacco product while pregnant. Also, we know that illicit drugs (illegal drugs) of any type are very harmful to mothers and unborn children. Additionally, if you are taking any of the following types or categories of drugs or medications, you are encouraged to discuss any potential consequences on you and your unborn child.

- Antibiotics
- Cholesterol
- Cancer
- Muscle Relaxants
- Cardiovascular/Hypertension
- Analgesics (pain relief)
- Anti-Convulsants
- Anti-Depressants
- Anti-Inflammatory
- Stimulants/Appetite Suppressants
- Anti-Coagulants (blood thinners)
- Diuretics
- Anti-Secretory Drugs
- Hormones
- Anti-Diabetic
- Anti-Progesterone
- Estrogen
- Asthma/Bronchodilators
- Acne Medications

- Urinary Tract Anti-Spasmodics

Remember, your physician should be consulted continually throughout your pregnancy since this partnership is working for the same goal; a healthy Mom and Baby.

Where Can I Go For Help If I Have A Problem With Alcohol, Tobacco, and Other Drugs?

Wyoming Valley Alcohol and Drug Services, Inc. provides confidential, professional assessment/evaluation and counseling services in a comfortable office setting at 437 North Main Street, Wilkes-Barre...820-8888. Our trained and highly-skilled counselors will meet with you to discuss treatment options and recommendations designed for you and your baby's health.

REMEMBER...early detection is important and will go a long way in reducing and eliminating health consequences for you and your baby.

Resources

Other available Perinatal Resources are available at Wyoming Valley Alcohol and Drug Services, Inc., 437 North Main Street, Wilkes-Barre, PA 18705; (570) 820-8888

- Perinatal Brochure
- Risk Assessment Questionnaire For Moms-To-Be
- Informational Websites On Drug Effects On Women and Fetal Development
- Perinatal School Curriculum
- Other Appropriate Informational Brochures On Women and Fetal Development

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