Sex and Gender Differences in Substance Use

Women may face unique issues when it comes to substance use, in part influenced by:

- sex—differences based on biology
- gender—differences based on culturally defined roles for men and women

Scientists who study substance use have discovered special issues related to hormones, menstrual cycle, fertility, pregnancy, breastfeeding, and menopause that can impact women’s struggles with drug use. In addition, women themselves describe unique reasons for using drugs, including controlling weight, fighting exhaustion, coping with pain, and self-treating mental health problems.

Science has also found that:

- Women use substances differently than men, such as using smaller amounts of certain drugs for less time before they become addicted.
- Women can respond to substances differently. For example, they may have more drug cravings and may be more likely to relapse after treatment. This could be affected by a woman’s menstrual cycle.
- Sex hormones can make women more sensitive than men to the effects of some drugs.
- Women who use drugs may also experience more physical effects on their heart and blood vessels.
- Brain changes in women who use drugs can be different from those in men.

The term "illicit" refers to the use of illegal drugs, including marijuana according to federal law, and misuse of prescription medications.
• Women may be more likely to go to the emergency room or die from overdose or other effects of certain substances.
• Women who use certain substances may be more likely to have panic attacks, anxiety, or depression.
• Women who are victims of domestic violence are at increased risk of substance use.
• Divorce, loss of child custody, or the death of a partner or child can trigger women’s substance use or other mental health disorders.

Substance Use While Pregnant and Breastfeeding

Substance use during pregnancy can be risky to the woman’s health and that of her children in both the short and long term. Use of some substances can increase the risk of miscarriage and can cause migraines, seizures, or high blood pressure in the mother, which may affect the baby. In addition, the risk of stillbirth is two to three times greater in women who smoke tobacco or marijuana, take prescription pain relievers, or use illegal drugs during pregnancy (Tobacco, drug use in pregnancy, 2013).

- 4.6 million women (or 3.8 percent) ages 18 and older have misused prescription drugs in the past year (SAMHSA, 2014).
- Every 3 minutes, a woman goes to the emergency department for prescription painkiller misuse or abuse (CDC Vital Signs, 2013).

When a woman uses substances regularly during pregnancy, the baby may go through withdrawal after birth, a condition called neonatal abstinence syndrome (NAS). Research has shown that NAS can occur with a pregnant woman’s use of opioids, alcohol, caffeine, and some prescription sedatives. The type and severity of a baby’s withdrawal symptoms depend on the drug(s) used, how long and how often the mother used, how her body breaks down the drug, and if the baby was born full term or prematurely.

Also, substance use by the pregnant mother can lead to long-term and even fatal effects, including:
• low birth weight
• birth defects
• small head size
• premature birth
• sudden infant death syndrome
• developmental delays
• problems with learning, memory, and emotional control

Some substances, such as marijuana, alcohol, nicotine, and certain medicines, can be found in breast milk. However, little is known about the long-term effects on a child who is exposed to these substances through the mother’s milk. Scientists do know that teens who use drugs while their brains are still developing could be damaging their
brain’s learning abilities. Therefore, similar risks for brain problems could exist for drug-exposed babies. Given the potential of all drugs to affect a baby’s developing brain, women who are breastfeeding should talk with a health care provider about all of their substance use.

**Sex and Gender Differences in Drug Treatment**

It is important to note that treatment for substance use disorders in women may progress differently than for men. Women report using some substances for a shorter period of time when they enter treatment. However, women’s substance use tends to progress more quickly from first use to addiction. Withdrawal may also be more intense for women. In some cases, women respond differently than men to certain treatments. For instance, nicotine replacement (patch or gum) does not work as well for women as for men.

It can be hard for any person with a substance use disorder to quit. But women in particular may be afraid to get help during or after pregnancy due to possible legal or social fears and lack of child care while in treatment. Women in treatment often need support for handling the burdens of work, home care, child care, and other family responsibilities.

- If a pregnant woman attempts to withdraw suddenly from addictive drugs and alcohol without medical help, she can put the baby at risk.

Specific programs can help pregnant women safely stop drug use and also provide prenatal care. Certain types of treatment have shown positive results, especially if they provide services such as child care, parenting classes, and job training. Medicines can help treat opioid use disorders in pregnant women, although some babies still need treatment for withdrawal symptoms. However, outcomes are better for the baby if the mother takes treatment medicine during pregnancy than if she continues to use opioids.

**Learn More**

For more information about substance use in women, visit:


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Updated September 2015
References


