

Learn about...

# Substance Use and Pregnancy

## What are substances?

Substances are drugs. They include anything that can alter the body's state when inhaled, injected or consumed. Some substances are legal, some are not. However, licit or illicit status is not always a helpful indicator of how harmful a substance can be.

Licit drugs are substances that are legal to use, including alcohol, tobacco, medications and caffeine.

Illicit drugs are substances that are not legal to use, except for medical reasons if prescribed by a doctor. Illicit drugs include cannabis (marijuana), cocaine (including crack cocaine), ecstasy, amphetamines (including methamphetamine), and heroin. Prescription medications like painkillers and sleeping pills are also illegal if they haven't been prescribed by a doctor (i.e., when they are sold on the street).

## How do substances work?

Some substances are stimulants. This means they increase activity in the brain and other parts of the central nervous system. Some examples are caffeine (which is legal) or ecstasy, cocaine and amphetamines (which are illegal).

Other substances are depressants. This means they slow down activity in the brain and other

parts of the central nervous system. Some examples are alcohol (which is legal) or heroin, pain killers (opioids), inhalants and, to some degree, cannabis (which are illegal).

While each substance works in its own way, all drugs affect the release, production or uptake of chemicals (neurotransmitters) between brain cells. The initial result of this influence is usually a good feeling. This "high" is what people who use drugs are searching for. But too much of a substance, or continued use over long periods of time, can result in negative feelings such as depression, anxiety and withdrawal symptoms.

## What are the risks of using substances during pregnancy?

Using any kind of substance during pregnancy carries some risk. Even mild drugs like caffeine can increase a woman's chances of having a miscarriage.

Alcohol and tobacco are the most common drugs used by pregnant women who use substances.

### Alcohol

Alcohol can be very harmful to a growing fetus. It has been linked to miscarriage, premature birth, low birth weight and numerous birth defects under the term Fetal Alcohol Spectrum Disorder (FASD).



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Nobody knows exactly how much alcohol causes mental and physical damage in an unborn child. Every mother and every fetus is different. But all babies' brains are sensitive to alcohol. And some babies are affected by very little alcohol. This is why women who are pregnant (or who are planning to get pregnant) should not drink any alcohol. It is the only way to ensure their baby will not be diagnosed with FASD. For more information, see the FASD fact sheet on the Here to Help website.

### **Tobacco**

Smoking can lead to problems with becoming pregnant, and pregnant women who smoke are more likely than non-smokers to have a miscarriage. Tobacco can also affect fetal growth. It has been connected with premature birth and low birth weight.

### **Sleeping Pills and Tranquillizers**

Many pregnant women have trouble sleeping because of

- increased hormone levels,
- discomforts such as nausea or heartburn,
- restless legs,
- trouble finding a comfortable position, and
- kicks from the baby.

It may be tempting for women in this situation to use sleeping pills or tranquilizers, but none have been declared completely safe for use by pregnant women. For that reason doctors generally discourage pregnant women from using them.

Sleeping pills can be habit-forming. If a mother uses them often, the baby can become addicted and may suffer withdrawal symptoms after birth. Some studies suggest that when pregnant women use barbiturates (like sleeping pills) regularly they risk

- having a baby with a low IQ,
- problems leading to jaundice or brain damage in the baby, and
- the chance that the fetus will have birth defects such as a cleft palate.

It is known that the use of benzodiazepines (tranquillizers) by a pregnant woman can cause symptoms in her baby such as failure to suckle, as well as have longer-term impacts on the child's development. Pregnant women should always talk to their doctor before taking any

prescription, over-the-counter or herbal sleeping pills or tranquilizers.

Illicit drug use during pregnancy is also risky, especially when combined with alcohol or tobacco use. Some specific examples follow:

### **1. Cannabis (marijuana)**

Research from the United States suggests that regular cannabis use by either partner can change the behavior of sperm, making it more difficult for a woman to get pregnant.

Once pregnant, women who use cannabis regularly (daily or almost daily) risk premature delivery. They may also raise their chances of having a low birth-weight baby. Babies born to mothers who used cannabis heavily during pregnancy may show mild withdrawal symptoms such as excessive crying and trembling.

There have been few studies following the growth of babies born to mothers who used cannabis during pregnancy. However, of the studies that have been done, some showed no long-term learning or behaviour problems. Others found that children exposed to cannabis may have long-term problems with focus and attention.

### **2. Cocaine (including crack cocaine)**

Using cocaine during pregnancy increases a woman's risk of having a miscarriage. It may also lead to placental abruption (when the placenta moves away from the uterus) and other types of early labour. Cocaine-use during pregnancy can also cause an unborn baby to have a stroke. This may result in brain damage or death.

Babies born to cocaine-using mothers are more likely to have a low birth weight, a small head, and short-term and long-term health problems.

Some cocaine-exposed babies may show symptoms of exposure at birth. These can include

- muscular rigidity,
- shakiness, and
- irritability.

Some babies seem to avoid all stimuli by sleeping for very long periods during their first weeks of life.

Most children exposed to cocaine before birth have normal intelligence. However, they may suffer from language delays and attention problems. Overall, potential long-term risks are more closely related to low birth weight and the environmental risks associated with cocaine exposure in the home, than to cocaine exposure itself.

### **3. Ecstasy and other amphetamine-type drugs (including methamphetamines)**

There are few studies available on the effects of ecstasy, methamphetamines and other stimulants on pregnancy and the development of a baby. However, there is evidence suggesting these drugs increase the risk of problems during pregnancy, including placental problems. Frequent and/or heavy methamphetamine use may cause premature delivery.

Babies exposed to amphetamine-type stimulants are more likely to have fetal-growth problems, low birth weight and smaller heads. They are also at risk of withdrawal-like symptoms at birth, such as

- irritability,
- drowsiness, and
- breathing problems.

Methamphetamine-exposed babies may have a higher risk of birth defects, including a greatly increased possibility of heart defects.

### **4. Heroin and other Opioids**

Use of heroin or other opioids such as oxycondone or methadone during pregnancy can increase the risk of miscarriage.

Forty to 60 per cent of babies born to mothers who use heroin, and up to 85 per cent of those whose mothers take methadone, experience withdrawal symptoms at birth. These symptoms include

- difficulty breathing,
- drowsiness,
- poor feeding,
- trembling,
- irritability,
- diarrhea,
- vomiting, and
- seizures (in severe, untreated cases).

Methadone is a long-acting opioid or narcotic medication which is an effective and legal substitute for heroin or other narcotics. Methadone helps to stabilize the lives of people who are dependent on heroin. It also helps to reduce the harm related to drug use.

When a mother receives methadone maintenance treatment (MMT), opioid withdrawal is reduced and the mother's health and prenatal care is improved, which reduces problems for the baby.

How heroin-exposed babies develop depends on many things, such as the seriousness of problems related to prematurity. Some studies show that heroin-exposed children have a higher risk of learning and behavioural problems.

The mode of use is also an issue for heroin users because most inject the drug into a muscle or vein. Sharing needles puts a woman and her fetus at risk of contracting blood-borne diseases such as hepatitis and HIV/AIDS.

*Note: Pregnant women who use heroin should not suddenly stop using the drug. Doing so can put their babies at risk of death. They should talk to a health care provider or drug treatment centre about options.*

### **5. Inhalants**

Women who use inhalants when they are pregnant increase their chances of miscarriage. They also risk having a baby with a low birth weight or birth defects, and having the baby early. There is some evidence that babies of women who use inhalants are in danger of long-term problems with cognitive, speech and motor skills.

## **When is substance use during pregnancy a problem?**

Many pregnant women who use illegal drugs also use alcohol and tobacco, both of which pose risks to unborn babies. For this reason, it is often difficult to tell which health problem is caused by which drug. Additionally, illegal drugs may not always be pure, depending on where they came from and how they were prepared. This makes it impossible to tell for

sure what the effects of specific drugs are on a fetus. Finally, pregnant women who use drugs may do other unhealthy things that put their pregnancy at risk, like not eating properly. All of these factors make it hard to know exactly what effects specific substances have on pregnant women and their babies.

Considering what we do not know about the effects of substances on pregnancy, the safest option is to avoid all substance use immediately before and during pregnancy, and while breastfeeding.

### **What to do if you or someone you know is experiencing a problem with substance use during pregnancy**

Many pregnant drug users face a stigma when they try to get help for their drug use. This can stop them from seeking help when they need and want it. The most extensive study conducted in this area showed that some of the reasons why women didn't, or couldn't, access services included

- personal denial,
- fear of stigmatization,
- concern about leaving existing children,
- guilt, and
- shame.

It also found that women face other barriers, such as

- opposition from friends and family,
- inadequate training of health professionals regarding a lack of women-sensitive treatment, and
- a lack of economic resources.

For information on treatment options and resources throughout British Columbia, call

#### **Alcohol and Drug Information Referral Service**

1-800-663-1441 (throughout BC)  
604-660-9382 (in Greater Vancouver)

For information on ways to help yourself with a substance use problem, see the "Tips" section of the Here to Help website: [www.heretohelp.bc.ca](http://www.heretohelp.bc.ca). The website also features detailed information on substances and mental health disorders.

You can also find information on a wide variety of substance use issues on the Centre for Addictions Research of BC website: [www.carbc.ca](http://www.carbc.ca).

