



► **Is cannabis safe during  
preconception, pregnancy  
and breastfeeding?**

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CANNABIS EVIDENCE BRIEF



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**BRIEFS AVAILABLE IN THIS SERIES:**

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- ▶ *Does cannabis use increase the risk of developing psychosis or schizophrenia?*
- ▶ *Is cannabis safe during preconception, pregnancy and breastfeeding?*
- ▶ *Is cannabis addictive?*

**PURPOSE:**

This document provides: key messages for health care providers (HCP) to share with individuals planning a pregnancy, who are pregnant or who are breastfeeding; and information to inform HCPs about the risks and health effects of cannabis use during pregnancy and breastfeeding. Information in this factsheet can be reproduced to develop public education materials, including videos, brochures, pamphlets, posters, etc.

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## ► **Key messages to share with women planning a pregnancy, and pregnant and breastfeeding women**

Having legal access to cannabis in Canada for people over 18 years old (or 19 in some provinces and territories) does not mean cannabis is safe to use while trying to conceive or while pregnant and/or breastfeeding. As with alcohol or tobacco, cannabis use while trying to conceive or while pregnant and/or breastfeeding carries risks and should be avoided.

### **General messaging**

- Cannabis smoke contains many of the same harmful chemicals as tobacco smoke.<sup>1-3</sup>
- It is important to tell your healthcare provider if you and/or your partner are using cannabis and you want to become pregnant, you are pregnant or breastfeeding.
- There is no known safe amount of cannabis use during pregnancy or breastfeeding.<sup>1,4</sup> The safest approach is to not use cannabis.<sup>5</sup>
- If you are using cannabis or cannabis products for medical purposes, talk to your healthcare provider about safer alternatives during pregnancy and breastfeeding.<sup>5</sup>
- If you need more information or support, talk to your healthcare provider.

### **For individuals planning for pregnancy**

- Using cannabis may harm the fertility of both men and women and decrease the ability to become pregnant.<sup>6,7</sup>

### **For pregnant women**

- Using cannabis during your pregnancy may result in your baby having a lower birth weight.<sup>1,8</sup>
- Using cannabis during pregnancy may harm your child's brain development and lead to:
  - problems understanding, learning, remembering or succeeding at school
  - hyperactivity, inattentiveness or impulsive behaviour
  - increased risk of depression or anxiety

These effects may last throughout your child's life.<sup>9,10</sup>

- Using cannabis to help with nausea or vomiting during pregnancy is not recommended. Talk to your healthcare provider about safer alternatives during pregnancy.

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### **For breastfeeding women**

- ▶ THC (delta-9-tetrahydrocannabinol), the substance in cannabis responsible for the “high”, is found in the breastmilk of women who smoke cannabis.<sup>11</sup> If using cannabis affects your mind and body, it may also affect your child’s mind and body.
- ▶ It is not known whether cannabidiol (CBD), another substance in cannabis, passes into the breastmilk of women using cannabis or CBD-containing products. However like THC, CBD is likely to accumulate in fatty tissues, such as breast tissue.

## ► Supporting information for health care providers

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The Society of Obstetricians and Gynaecologists of Canada recommends that:<sup>12</sup>

- ▶ Pregnant women and women of child-bearing age be asked periodically about substance use, including cannabis.
- ▶ Healthcare providers should advise pregnant women to abstain from or reduce cannabis use during pregnancy to prevent negative long-term cognitive and behaviour outcomes for exposed children.

### Cannabis use among pregnant individuals

More research is needed to clearly understand all the potential effects of cannabis on fertility, pregnant and breastfeeding women, and their offspring.<sup>1</sup>

Cannabis is the most frequently used illicit drug during pregnancy.<sup>9</sup> Although there are no recent Canadian statistics on cannabis use during pregnancy, in a recent (2015) national US survey, approximately 3.5% of pregnant women reported using cannabis during the past month.<sup>13</sup> Use of cannabis by pregnant women is relatively constant throughout pregnancy: 4.0% of pregnant women use cannabis during their first trimester compared to 3.5% and 2.7% in the second and third trimesters, respectively.<sup>13</sup>

### Effects of cannabis on fertility

Using cannabis may decrease the ability to become pregnant:

- ▶ In men, using cannabis may decrease the number and the motility of sperm making it harder to get their partner pregnant.<sup>6</sup>
- ▶ In women, cannabis may harm fertility through different mechanisms such as menstrual cycle disruptions and decreased egg implantation.<sup>14, 15</sup> Using cannabis can also decrease the success of an *in vitro* fertilization procedure.<sup>7</sup>

Individuals who are trying to get pregnant should be advised to not use cannabis.

### Effect of using cannabis while pregnant

#### SHORT-TERM EFFECTS ON THE BODY:

- ▶ damage blood vessels when smoked<sup>16</sup>
- ▶ increase heart rate<sup>1</sup>
- ▶ decrease blood pressure<sup>17</sup>

The decrease in blood pressure may cause dizziness or fainting which may cause injury to both mother and fetus as a result of a fall. Women who use cannabis during pregnancy may also be at greater risk of anemia.<sup>8</sup>

## SHORT-TERM EFFECTS ON THE BRAIN:

- ▶ sleepiness and fatigue<sup>18, 19</sup>
- ▶ confusion and forgetfulness<sup>18</sup>
- ▶ anxiousness and fear of others (paranoia)<sup>18</sup>
- ▶ impaired coordination<sup>20, 21</sup>

## Effects of cannabis on fetuses and breastfed children

During pregnancy, chemicals found in cannabis, such as THC, the substance that produces the “high” and other effects on the brain and body, are carried through the bloodstream to the fetus.<sup>22</sup>

Similarly, if cannabis is used while breastfeeding, THC passes from the blood into breastmilk and then on to the baby.<sup>11</sup> There may be up to eight times more THC in breast milk than in a mother’s blood.<sup>23, 24</sup>

THC (and other cannabinoids) are stored in fat<sup>25</sup> and are slowly released from the fat back into the bloodstream.<sup>26</sup> In heavy users, it can take up to 30 days after stopping cannabis for THC levels to be undetectable in the blood.<sup>27</sup> This means that even if one has stopped using cannabis, THC and other cannabinoids may still be in the blood and be passed onto the fetus or the breastfeeding baby.

THC that is passed on from mother to baby during pregnancy and breastfeeding can affect a baby’s health in many ways. For example:

- ▶ Exposure to cannabis during pregnancy is associated with a low birth weight.<sup>1, 28</sup>
- ▶ Babies exposed to THC through breastmilk may be drowsy, have reduced muscular tone and have poor suckling,<sup>29</sup> which could impact breastfeeding success and the baby getting enough breastmilk.

It is possible that the effects may persist depending on the extent and duration of the child’s exposure to cannabis. If cannabis is used during pregnancy or breastfeeding, it may affect a child’s brain development, behaviour and mental health.<sup>30</sup> The child may have problems remembering things and paying attention in school and experience difficulty thinking through problems. This could affect their behaviour (e.g. make them hyperactive) and even increase the chance they will use cannabis when they are older.<sup>9, 10</sup> However, more research is needed to better understand the long-term health effects of cannabis use on fetuses and breastfed babies.

## Using cannabis for medical purposes during pregnancy or breastfeeding

The Society of Obstetricians and Gynaecologists of Canada recommends that alternative therapies proven to be safe during preconception, pregnancy and breastfeeding should be recommended over cannabis for medical purposes.<sup>31</sup>

## Using cannabis to treat nausea and vomiting of pregnancy

Some women use cannabis to treat nausea and vomiting during their pregnancy.<sup>32, 33</sup> However, this is not a recommended practice.<sup>34</sup> Women are encouraged to ask their healthcare provider about safer alternatives to treat nausea and vomiting during pregnancy.

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