

# **Dextromethorphan, Let's Talk About It!**



## **Parents' Guide**

**Created in Collaboration with Drug Free Kids Canada**



## In partnership with

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# TABLE OF CONTENTS

<b>I. INTRODUCTION</b>	<b>2</b>
<b>II. BACKGROUND</b>	
• Origins of the Recreational Usage of Dextromethorphan	<b>3</b>
• What Influences Teens to Recreationally Consume Dextromethorphan?	<b>4</b>
• Media's Influence	<b>6</b>
<b>III. CONSEQUENCES AND ACCESS TO DEXTROMETHORPHAN</b>	
• What Are the Risks Associated to Dextromethorphan?	<b>7</b>
• Access to Dextromethorphan	<b>8</b>
<b>IV. TALKING TO YOUR TEENAGER ABOUT DEXTROMETHORPHAN</b>	
• Preparing for the Conversation	<b>9</b>
• During the Conversation	<b>10</b>
• What Could you Ask Your Teenager?	<b>11</b>
• Signs of Recreational use of Dextromethorphan	<b>12</b>
<b>V. RESOURCES</b>	<b>13</b>
<b>VI. CONCLUSION</b>	<b>14</b>
<b>VII. BIBLIOGRAPHY</b>	<b>15</b>

# I. Introduction

We are a group of 9 undergraduate Doctor of Pharmacy (Pharm.D.) students at the University of Montreal. As part of our course "Projet spécial en pharmacie: service à la communauté", we, in partnership with the national organization Drug Free Kids (DFK), made a guide for parents on the topic of: Recreational use of dextromethorphan (DXM) by Canadian teenagers.

DXM is a drug used to treat coughs and is contained in more than 70 other over-the counter drugs (OTC) on drugstore shelves in Canada **(1)**. Its recreational usage is prevalent among Canadian teenagers because it is easily accessible **(1)**. However, "accessible" does not mean harmless. Indeed, its overusage can be harmful. Thus, due to the increasing prevalence of DXM's recreational usage among young Canadian adolescents, it is important for parents to be aware of this phenomenon. This is so in order to detect signs of DXM's recreational usage and to prevent its recreational use.

In order to produce this guide, we examined the factors that may lead to the recreational usage of DXM by teenagers. Afterwards, we gathered information from evidence-based ressources and tools to help parents learn more about the risks of recreational usage of DXM. Also, several tools will be presented to you to help you prepare to have a conversation about dextromethorphan with your teenagers.

Lastly, you are the most important people in your child's life. A simple discussion can have a great impact on his life. **(2)**.

We sincerely hope that this guide will be helpful to you.



## II. Background

### Origins of the Recreational Usage of Dextromethorphan

Dextromethorphan is used in syrups to relieve the signs and symptoms of coughs and colds. Since its commercialization between the 1960's and 1970's, the recreational usage of dextromethorphan has increased in popularity (3).

In response to this phenomenon, pharmaceutical companies modified the syrup's formulation to create an unpleasant taste that discourages its recreational usage (4).



However, the recreational usage of dextromethorphan increased in the 1990's with the arrival of the drug in capsule form on the pharmaceutical market.

In fact, it was more convenient to take a few pills rather than drink a whole bottle of syrup in order to have similar effects (4).

Lastly, dextromethorphan is available in several forms such as long-acting liquid, capsules, lozenges and syrup.

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***"Parents are the ultimate role models for children. Every word, movement and action has an effect. No other person or outside force has a greater influence on a child than a parent"***

*- Bob Keeshan, American entertainer*



# What Influences Teens to Recreationally Consume Dextromethorphan?

## Social environment



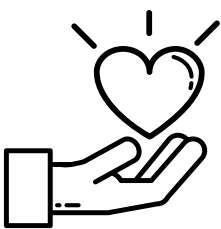
Dextromethorphan is used in social situations such as festivals and parties. The practices and influences of friends or acquaintances play an important role in decision-making when it comes to the recreational consumption of this drug (5).

## Home environment

As a parent, you can have a positive impact on your child's behavior. Discussing the risks of dextromethorphan with your teenager reduces the chances of them using the drug recreationally (6).



## Lack of awareness



Being an OTC medicine, dextromethorphan is mostly perceived as safe. It is important to raise awareness among youth concerning the fact that dextromethorphan may cause undesirable effects at certain concentrations (7).

## Low cost

Compared to other substances, dextromethorphan is cheaper.



## Psychological factors

Mental health is a significant factor when it comes to the recreational usage of dextromethorphan. Teenagers suffering from anxiety and depression are at higher risks of consuming this substance (8).



### Special case: COVID-19

The stress and anxiety due to COVID-19 may result in people increasing their usage of alcohol, cannabis, medicines and many other substances. Some consume as a way to get rid of negativity. However, the improper use of these substances can lead to psychological problems which can persist in the future (9). The same can be observed in teenagers as their social life has been greatly impacted since the start of COVID-19. They spend much more time at home, away from socializing with their friends. As a result, they may turn towards substance use as a way to feel happier (9).



### Easy access



Since dextromethorphan is an OTC medicine, it is easily accessible. A pharmacist may not always be there to supervise the purchase (10).



## Did you know?

- According to a recent study by Drug Free Kids, drugs containing codeine or dextromethorphan are present in about 30% of Canadian households. (11).
- According to the Canadian Student Tobacco, Alcohol and Drugs Survey (2018-2019), dextromethorphan use to get high increased to 6% among students from grades 7 to 12 which is approximately 126 000 students (12).



# Media's Influence #

## The influence of online consumers

Some online discussion forums address the recreational usage of dextromethorphan. While navigating through those forums, we can find various information such as the dosage, often higher than the recommended doses, needed to feel psychotropic effects like hallucinations (13). Therefore, it is important for teenagers who visit those online forums to be aware of dextromethorphan's potentially harmful side effects that can result from its recreational usage (14).

## Lack of information on long-term effects

Furthermore, little research has been done on the long-term effects of dextromethorphan usage. Thus, someone consuming it for its alternative effects may not be aware of the potentially harmful consequences. (13).



## Popular figures

For several years, famous rappers and influencers among young Canadians have praised the use of cough suppressants in their songs' lyrics (15). Several words such as "Lean" and "Drank" are used to describe them.

## Other terms used to identify dextromethorphan

Lean, Drank, Barre, Purple stuff, syrup, sirzzurp, Balminil DM, benylin DM, DXM, skitting, tussin, robo-tripping, robo, CCC, triple Cs and dexting (15)





# III: Consequences and access to dextromethorphan

## What Are the Risks Associated to Dextromethorphan?

### PHYSICAL CONSEQUENCES



#### Side effects of a daily dose higher than 120 mg

The side effects resulting from dextromethorphan recreational usage depend on the ingested quantity. The effects can be classified as minor, moderate or severe (4). Minor side effects can include vomiting and sweating, while major side effects can include agitation, somnolence and possibly, hallucinations which can lead to psychosis (4).

Consumption of excessive doses can lead to psychotropic effects such as mania, delirium, hallucinations and psychosis, the last two effects resulting from higher doses. Psychotropic effects last about 6 hours (14). However, they depend on many factors such as weight, tolerance (the degree of tolerance to dextromethorphan) and others (14). Therefore, not everyone reacts the same way to the drug.

The side effects of dextromethorphan may be similar to the side effects of a combined consumption of alcohol and cannabis (14).

### WARNING



#### Behind the wheel

The recommended daily dose of 120 mg does not decrease an individual's vigilance behind the wheels... (16)



...BUT if individuals consume doses higher than 120 mg per day, their driving abilities may be affected (16).

# Access to Dextromethorphan

## About the accessibility of dextromethorphan

Health Canada classified dextromethorphan in the OTC drug category making it easy for anyone to purchase it without a doctor's prescription **(17)**. In addition, dextromethorphan is often incorporated as an ingredient in syrups for cough and flu relief, which are common OTC medications.



## ***Did you know?***

- **Some dextromethorphan products have been removed from the OTC drug category to prevent the harm if consumed in doses higher than those recommended. Although, there are still some syrups containing dextromethorphan that are sold without the need of a prescription.**
- **Dextromethorphan is now used in cold syrups to replace codeine, normally used to reduce cough as well.**
- **Dextromethorphan and codeine do not produce any euphoric effects when taken at recommended or prescribed doses **(18)**.**

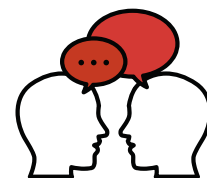
# IV: Talking to your teenager about dextromethorphan

## Preparing for the Conversation

- **Think** about what you are going to say, then act.
- **Put yourself in your teenager's shoes.** For example, if it applies, think about what possibly made you want to try substances.
- Find the **right moment**.
- Schedule **enough time** for the discussion.
- Choose a **quiet and distraction-free location**.
- Establish **clear goals**.
- **Seek support** by talking to other parents. An outside perspective may help you see the situation differently **(19)**.



# During the Conversation

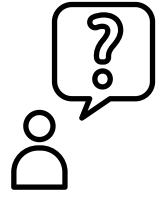


It is important to create a calm and friendly environment with your teenager during the conversation. You are more likely to get genuine answers if they feel listened to and understood. Table 1 presents three attitudes to adopt in order to have the most honest and healthy conversation with your teenager **(20)**.

**Table 1: Attitudes to adopt during the conversation**

<b>Attitude to adopt during the conversation</b>	<b>Why?</b>
<b>Be calm and relaxed</b>	If you decide to talk to your teenager under stress, they will feel the pressure. In turn, they may not be 100% honest when answering the questions. A calm and relaxed atmosphere is the key to a climate of trust.
<b>Have an open mind and be positive</b>	If the teenager feels judged, he will not listen and will not consider your comments or suggestions. He will try to escape the conversation by giving you only answers that satisfy you.
<b>Be conscious about body language</b>	The reaction you have to your teen's responses says a lot about your perception of the situation and about how you feel. Thus, a teen who does not feel listened to will refrain from speaking more.

# What Could You Ask Your Teenager?



Instead of saying that you think recreational use of dextromethorphan is wrong, share your impressions. This section provides examples of open-ended questions as conversation starters **(21)**.

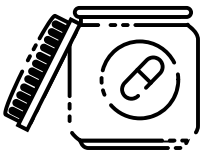
- What do you know about dextromethorphan?
- How do you think it can be obtained? For example, where and in what form?
- Has anyone ever offered you dextromethorphan? If so, what was your response ?; If not, what would you have said?
- Why do you think teenagers might use dextromethorphan recreationally?



# Signs of Recreational Use of Dextromethorphan

It is difficult to tell if someone has a problem with dextromethorphan usage but it is possible to recognize warning signs that could indicate recreational usage of dextromethorphan in teenagers :

- Purchasing cough medicine when not ill;
- Use of certain slang terms for DXM (see page 6);
- Internet searches for information on the usage of dextromethorphan;
- Empty boxes and empty bottles of cough syrup in the household garbage (22).



It is important to return medicine containing dextromethorphan or other substances that are not used anymore or that have expired to your local drugstore for safe disposal.



# V. Resources

## What Resources in the Community Are Available for Parents and Teenagers?



### Drug Free Kids (23)

- Drug Free Kids (DFK) is a national organization dedicated to prevent and decrease the use of illicit substances by the youth in Canada. DFK also provides parents with information and resources to help them start a discussion about substance usage with their children. DFK has a large network of family support, and a group of parents, caregivers and families.
- Telephone number: 416-479-6972
- Email: [info@drugfreekidscanada.org](mailto:info@drugfreekidscanada.org)
- Website: <https://www.drugfreekidscanada.org>



### Première ressource, aide aux parents (24)

- *Première ressource, aide aux parents* is an organization offering consultation and support services to parents and families across Quebec. Through mobile clinics for individual consultations and lectures on the themes of education and family, it addresses everyday issues and complex cases to support parents in their parenting journey. Their consultation services are free and confidential, and can be done in English or French, with no time limit.
- Telephone number: (514) 525-2573 or 1 (866) 329-4223
- Email: [consultation@premiereressource.com](mailto:consultation@premiereressource.com)
- Website: <https://premiereressource.com/en>



### Portage (25)

- *Portage* is a Canadian non-profit organization whose objective is to help people (teenagers and adults) struggling with drug usage, to overcome their addiction and live a clean, happy and productive life. For this purpose, it has specialized drug rehabilitation programs.
- Telephone number: (450) 224-2944
- Website: <https://portage.ca/en/>
- Other means of contact: Fill out the online form on their website



### Kids Help Phone (26)

- *Kids Help Phone* provides support services for teens across Canada, in English and in French. Their volunteer crisis responders are trained to support the youth in difficult moments and for any simple, difficult or complex subjects. They are accessible 24/7 via text messaging, phone, live chat and other community programs, ready to answer, listen and help young people.
- Phone number: 1-800-668-6868 ou text to 686868
- Site web: <https://kidshelpphone.ca>





# VII. Conclusion

We truly hope this guide was helpful to you.

Moreover, we thank Chantal Vallerand, executive director of Drug Free Kids Canada, and her team for the significant help they provided us throughout the project. Without their support, we would not have been able to achieve such a guide. We are grateful for the assistance and relevant advice their team provided us.

For more information on other related topics such as cannabis consumption, feel free to visit the Drug Free Kids Canada website at <https://www.drugfreekidscanada.org/>. They cover a variety of themes covering drug abuse to help parents and families cope with drug usage by the youth.

We would also like to thank our professors from the Faculty of Pharmacy at the University of Montreal, Caroline Robitaille and Andréanne Robitaille. They have helped us throughout the year-long course "Projet spécial en pharmacie: service à la communauté" and in the making of this informative guide to empower parents. The course structure and timelines, as well as their advice have allowed us to build a successful project of which we are very proud.

Finally, we appreciate the time and help given by the people who reviewed the guide. We would like to thank Stéphanie Courtois (pharmacist), Me François Richard (lawyer) and Lycia Martineau (psychosocial worker), who, with their expertise, enabled us to create this useful guide.

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