Medication and Other Treatments for Long COVID

Category: 3. Road to Recovery

There are many medications that have been used to treat Long COVID symptoms

There is still much that is unknown about how a person develops Long COVID and about how best to treat the condition.

The Canadian Guidelines for Post COVID-19 Condition (CAN-PCC) has conducted a rigorous review of scientific evidence available for the treatment of Long COVID. They reviewed the evidence for the following medication treatments. Each treatment is discussed in this section, including what the evidence says and what the CAN-PCC recommends based on evidence available.

The recommendations are up to date as of Spring 2025. Please note many of these medications are not currently recommended by the CAN-PCC, based on research evidence of their safety and benefits.

If a treatment is not recommended by CAN-PCC or another guideline committee, it does not always mean that it will not be helpful for you. The decision to start a particular treatment should be made between you and your health-care provider. The decision should be based on guidelines, available evidence on the risks and benefits of the treatment, your provider's clinical experience, and taking your symptoms, preferences and values into account.

	Currently recommended by CAN-PCC	Currently not recommended by CAN-PCC
For general symptom management		
1. Antivirals		X
2. Low-dose naltrexone		X
3. Corticosteroids		X
For cognitive symptoms		
4. Melatonin for sleep disturbance	X	
5. Central nervous system (CNS) stimulants for brain fog		X
6. Selective serotonin reuptake inhibitors (SSRIs) for brain fog		X
7. Hyperbaric oxygen therapy for cognitive impairment		X
For heart or lung symptoms		
8. Medications for POTS	For people with POTS	
9. Antiplatelet drugs to prevent blood clots		X
For gut and gastrointestinal symptoms 10. Antihistamines for MCAS	For people with MCAS	
For a new COVID-19 infection 11. Metformin and antivirals	X	

As more research evidence and new treatments become available these recommendations may change. Please go to the CAN-PCC website for more information about these guidelines. Each recommendation is offered in both technical and plain language format.

1. Antivirals for general symptom management

What are antivirals?

Antivirals are a type of medication that help your body fight off harmful viruses. These medications can help reduce the symptoms or shorten the duration of a viral infection.

Treatment for Long COVID

One leading scientific hypothesis for the cause of Long COVID is that the COVID-19 virus or its particles stay in some people's bodies and persistently triggers an immune response, leading to many different symptoms of Long COVID.

However, there is not enough high quality research evidence to confirm that there are enough benefits to using antivirals to treat Long COVID, and there may be harmful effects, such as diarrhea, nausea, taste changes, dizziness, hypersensitivity, and a slow heart rate.

For these reasons, the CAN-PCC currently suggests **against** using antivirals (namely Paxlovid, molnupiravir, and remdesivir) to treat Long COVID. Please click on each medication for CAN-PCC recommendations for these medications.

Please note that molnupiravir is not recommended for people under 18 or those who are pregnant or breastfeeding or chestfeeding.

2. Low-dose naltrexone for general symptom management

What is naltrexone?

Naltrexone is a medication that acts on opioid receptors, but it is different from opioid medications like morphine and codeine. At regular doses (25 to 50 mg), naltrexone is approved to treat alcohol use disorder and opioid use disorder.

Low-dose naltrexone (doses of 1.5 to 6.0 mg) has been used off-label for other conditions (using a medication 'off-label' means to use it in situations other than what it has been approved for).

A pharmacist needs to prepare a customized low-dose of naltrexone using a process called 'compounding.' Not all pharmacies are able to do this, so you might want to call your pharmacy ahead to ask if they are able to compound medications such as naltrexone.

Treatment for Long COVID

Although low-dose naltrexone has been used by many people with Long COVID to help manage their symptoms, there is not enough research evidence yet about the potential benefits and harms of low-dose naltrexone for people with Long COVID. More research is needed.

For this reason, the CAN-PCC currently suggests **not** using low-dose naltrexone for adults with Long COVID. This recommendation may change when more research is done in the future.

You can talk to a healthcare professional about more information about low-dose naltrexone and whether it could be an option for you or someone you care for who has Long COVID. People who take regular opioid medications or have liver disease, should not take low-dose naltrexone.

It is important to note that right now, low-dose naltrexone is not easily accessible for everyone because it is not approved for the treatment of Long COVID or other conditions by Health Canada. You can talk to a healthcare professional about access and cost of this medication.

3. Corticosteroids for general symptom management

What are corticosteroids?

Corticosteroids are prescription medications used to reduce inflammation in the body. It is used to treat many different conditions, especially autoimmune diseases. Corticosteroids can be taken through the nose (intranasally), inhaled, or taken orally (as a pill).

Treatment for Long COVID

One of the scientific hypotheses for the cause of Long COVID is that the body creates antibodies that attack the body by mistake (also known as immune system dysregulation) and persistently triggers an immune response, leading to many different symptoms of Long COVID.

Right now, there is not enough research evidence showing that corticosteroids (specifically intranasal corticosteroids) have enough beneficial effects for Long COVID symptoms, and undesirable effects can vary, including bleeding in the nose and stomach irritation. More research is needed.

For this reason, the CAN-PCC currently suggests **not** using corticosteroids for adults with Long COVID. This recommendation may change when more research is done in the future.

4. Melatonin for sleep disturbances

What is melatonin?

Melatonin is a naturally occurring hormone in the body and it regulates your sleep-wake cycles. Melatonin can also be taken as a supplement to help with insomnia and jet lag. It is safe to use in recommended dosages with relatively few side effects.

Treatment for Long COVID

There is no scientific evidence yet about melatonin use in people with Long COVID sleep disturbances. Studies of people with sleep disturbances in the general population show that melatonin, combined with good sleep habits, can help improve sleep. There are some mild side effects to melatonin, such as excessive sleepiness and headache.

For this reason, the CAN-PCC currently suggests using melatonin and good sleep habits to manage sleep disturbances for adults with Long COVID.

Please note that melatonin supplements found in stores may not contain the exact dose provided on the label. Melatonin can also interact with other medications. Talk to a healthcare professional about melatonin and its benefits for you.

5. Central nervous system (CNS) stimulants for brain fog

What are CNS stimulants?

CNS stimulants are substances that boost the activity of the central nervous system. They can increase alertness, attention, physical activity, and energy levels. CNS stimulants can block or increase levels of certain neurotransmitters, depending on the drug.

CNS stimulants are often used to treat attention deficit hyperactivity disorder (ADHD) by increasing dopamine levels in the central nervous system. CNS stimulants are also used to treat depression and narcolepsy (a condition that makes people very sleepy during the day and can cause them to fall asleep suddenly).

Examples of pharmaceutical CNS stimulants include methylphenidate (brand names include Ritalin, Concerta), dexamphetamine (brand name Aderall), lydexamphetamine (brand name Vyvanse), and modafinil (brand name Provigil).

Treatment for Long COVID

There is not enough research currently to show whether CNS stimulants help with brain fog for people with Long COVID, with or without the presence of post-exertional malaise (PEM).

More research is needed on the impact of CNS stimulants on brain fog related to Long COVID.

For this reason, the CAN-PCC currently suggests **not** using CNS stimulants for brain fog due to Long COVID.

6. Selective serotonin reuptake inhibitors (SSRIs) for brain fog

What are selective serotonin reuptake inhibitors?

Selective serotonin reuptake inhibitors, or SSRIs, are mainly known for treating depression and anxiety disorders. It has been speculated that SSRIs may help improve brain fog.

Treatment for Long COVID

Currently there is not enough strong research evidence on the effects of SSRIs on brain fog in people with Long COVID. Some evidence on the use of SSRIs for other conditions, such as mood disorders, shows there may be a potential for them to cause undesirable side effects and harms.

For these reasons, the CAN-PCC currently suggests **not** using SSRIs for brain fog for people with Long COVID. More scientific research is needed on the benefits and potential harms of SSRIs for this use.

However, if you are someone with Long COVID who also has depression or anxiety, SSRIs may be helpful for treating those symptoms. Please talk to your healthcare providers about this.

7. Hyperbaric oxygen therapy for cognitive issues

What is hyperbaric oxygen therapy?

Hyperbaric oxygen therapy is a medical treatment used to manage a variety of conditions (such as to treat certain wounds and specific medical emergencies) by providing a person with 100% oxygen in a special high-pressure environment called a 'chamber.' This therapy lets your lungs take in much more oxygen than it would at normal air pressure.

Treatment for Long COVID symptoms

The CAN-PCC recommends **against** using hyperbaric oxygen therapy in people with Long COVID and cognitive issues because there is not enough research evidence at this time to rule out the possibility of harm.

Scientific evidence is still very limited on the benefits of hyperbaric oxygen therapy for cognitive issues in Long COVID.

There is some research showing that hyperbaric oxygen therapy can help with symptoms like fatigue and brain fog for people with Long COVID, as well as helping with pain and quality of life.

However, people with Long COVID may also experience side effects using this therapy, such as cough, chest pain, lung symptoms, as well as ear discomfort, vision changes, and headaches if they also have other conditions.

Also, there are a limited number of hyperbaric oxygen therapy facilities in Canada, making access to this therapy potentially difficult.

8. Medications for postural orthostatic tachycardia syndrome

What is postural orthostatic tachycardia syndrome?

Postural orthostatic tachycardia syndrome, or POTS, is a condition that can cause fast heart rate, dizziness, drop of blood pressure, and fatigue after standing up, and it affects some people with Long COVID.

Treatment for Long COVID

The CAN-PCC guidelines currently suggest using the following medications for symptoms of POTS in adults with Long COVID. This recommendation is based on some scientific evidence that show these medications have moderate benefits for people Long COVID and POTS (such as improved quality of life):

- For fast heart rate: ivabradine or beta-blockers
- For dizziness or low blood pressure: midodrine or pyridostigmine

It is important to note that these medications may cause small undesirable side effects, such as fatigue, drowsiness, and nausea. Also, there is no research evidence on combining these medications (for example, taking ivabradine and beta-blockers together). Despite this, the CAN-PCC has concluded that the benefits of combining medications outweigh the harms.

Talk to a healthcare professional if you are experiencing symptoms of POTS and whether medication would be helpful for you.

9. Antiplatelet drugs to prevent blood clots

What are antiplatelets?

Antiplatelet drugs are a type of medication that stop platelets (a type of blood cell) from clumping and forming clots. These medications are often used to lower the risk of heart attack and stroke.

Examples of antiplatelet drugs include Aspirin (acetylsalicylic acid, or ASA) and clopidogrel (brand name Plavix). Aspirin can be purchased over-the-counter at a pharmacy, but other antiplatelet drugs require a prescription.

Treatment for Long COVID

There is some scientific evidence suggesting that Long COVID may increase a person's risk of blood clots (also called thrombotic events) in the Long term. However, more research is needed to confirm that antiplatelets can help prevent blood clots without increasing the risk of bleeding in people with Long COVID.

For this lack of scientific evidence, the CAN-PCC currently suggests **against** using antiplatelet drugs for Long COVID to prevent blood clots. This is unless you have a history of other conditions that need these drugs, such as heart attack or a blot clot to or in the brain (a stroke).

Antiplatelets have little to no benefits for people with Long COVID and with no history of these other conditions. In fact, these drugs can lead to major harms, like bleeding.

Some people with Long COVID find antiplatelets acceptable to use, but it may not be covered by provincial pharmacare. See the CAN-PCC recommendations against using antiplatelet drugs for more information.

10. Antihistamines for mast cell activation syndrome

What are antihistamines?

Antihistamines are medications used to help with symptoms of allergies, such as hay fever, hives, and reactions to insect bites.

They are also sometimes used for motion sickness, nausea (feeling like you want to throw up), vomiting, and insomnia (not being able to sleep).

You can buy most antihistamines at pharmacies and drug stores without a prescription. Some antihistamines can make you sleepy, but there are non-drowsy types also available.

Treatment for Long COVID

There is some research evidence showing that antihistamines can help improve quality of life in people who have symptoms of MCAS and Long COVID.

MCAS (or mast cell activation syndrome) is a condition that causes a person to have several allergy related symptoms in multiple body systems. It can show up as:

- Flushing, swelling, itching of the skin
- Stuffy nose
- Runny nose
- Red eyes
- Cough
- Difficulty breathing
- Nausea
- Diarrhea
- Abdominal pain
- Fatigue
- Concentration problems
- Low blood pressure
- General weakness

The CAN-PCC suggests using antihistamines for people with Long COVID and symptoms of MCAS, as it is a safe low risk option for symptom relief for many people. However, the CAN-PCC suggests not using antihistamines on an ongoing basis if you do not have MCAS. There may be some Long term risks associated with prolonged use of antihistamines.

Talk to your healthcare provider if you have symptoms of MCAS and if antihistamines or other MCAS management options are right for you.

11. Medications for a new COVID-19 infection

If you have Long COVID and **get a new COVID-19 infection**, there are medications you may take to reduce the risk of developing new Long COVID symptoms.

Right now there is no research evidence about medications for people with Long COVID who have a new COVID-19 infection. Based on evidence from people **without** Long COVID who have a new COVID-19 infection, the CAN-PCC suggests using a medication from this list of options (in the order of most preferred to least preferred):

1. **Metformin** is the easiest to use, most available, and has a lower cost. It can be taken safely with other medications and treatments for Long COVID. It may cause some stomach issues.
2. **Paxlovid** (nirmatrelvir/ritonavir) has some side effects, has a high cost, and interacts with many other medications.
3. **Remdesivir** needs to be taken intravenously (via a hypodermic needle) so it is not as easy to use.
4. **Molnupiravir** is not currently available in Canada but may become an option if it is approved. It is not recommended for people under 18 or those who are pregnant or breastfeeding/chestfeeding.

More research is needed on the benefits and harms of these and other medications for people with Long COVID. Talk to a healthcare professional about these medications if you get a new COVID-19 infection.

Please see the CAN-PCC recommendation comparing Paxlovid, remdesivir, and molnupiravir, as well as the recommendation comparing metformin and Paxlovid for more information.

Where to next

- Visit the CAN-PCC website for more information on the recommendations we have covered on MyGuide Long COVID. Click here to access those recommendations.
    - You can also read them in plain language format.
- You can also click on each hyperlink below to read the recommendations we have covered in this topic in plain language:
    - NOT using antivirals for symptom management (Paxlovid, molnupiravir, and remdesivir)
    - NOT using low-dose naltrexone for symptom management
    - NOT using corticosteroids for symptom management
    - NOT using central nervous system (CNS) stimulants for brain fog
    - NOT using selective serotonin reuptake inhibitors (SSRIs) for brain fog
    - NOT using hyperbaric oxygen therapy for cognitive impairment
    - Using melatonin for sleep disturbance
    - NOT using antiplatelet drugs to prevent blood clots
    - Using medications for POTS
    - Using antihistamines for MCAS
    - A comparison of Paxlovid, remdesivir, and molnupiravir for new COVID-19 infections
    - A comparison of metformin and Paxlovid for new COVID-19 infections