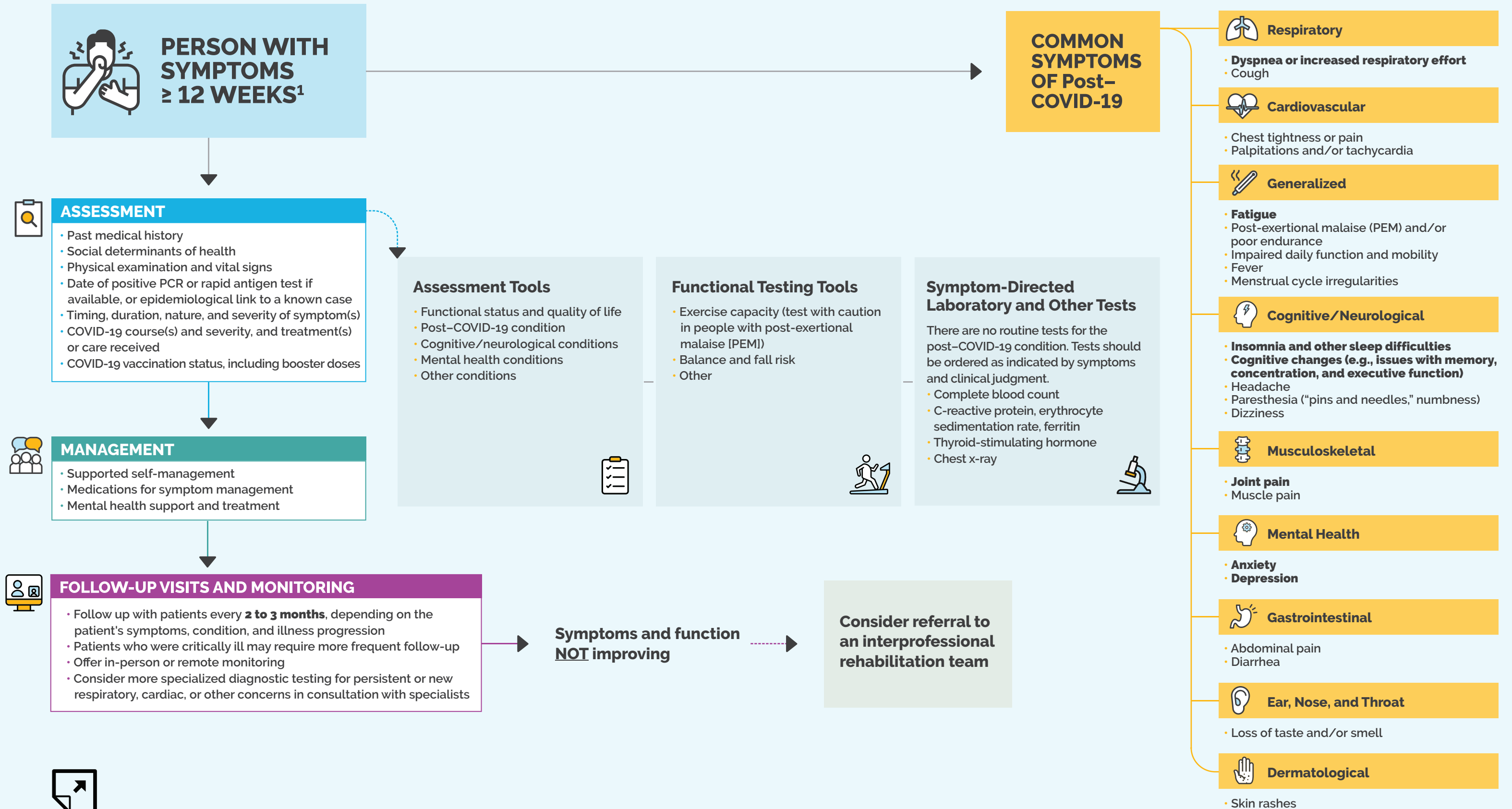


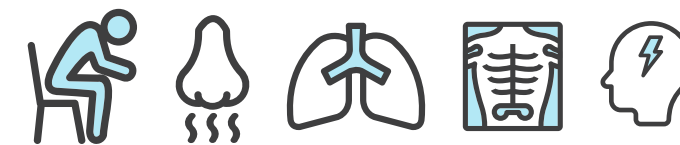
Post-COVID-19 Condition: Guidance for Primary Care



See next page for more information

Assessment and Management of the Post-COVID-19 Condition

Content adapted from [Post-COVID Conditions: Information for Health Care Providers](#)³ and [Understanding the Post-COVID-19 Condition \(Long COVID\) in Adults and the Expected Burden for Ontario](#)⁴



Background

The post-COVID-19 condition can be diagnosed and managed by primary care providers. This document provides information about the diagnosis, assessment, management, and referral of adults with symptoms related to the post-COVID-19 condition. More than 100 symptoms have been identified for the post-COVID-19 condition and are linked to reduced function, impairments in people's ability to work and care for themselves, poor quality of life, and high health care use.⁴

The guidance provided is based on individual medical expert opinion and the best currently available data at that time. Because our understanding of the post-COVID-19 condition is likely to evolve rapidly with ongoing research, clinical guidance will likely change over time.

Definitions

The post-COVID-19 condition (or long COVID) describes a range of symptoms after probable or confirmed SARS-CoV-2 infection that persist beyond 12 weeks.¹ This condition can arise after severe, mildly symptomatic, or asymptomatic SARS-CoV-2 infection.³

Incidence

Estimates from early in the pandemic indicated more than 40% of people diagnosed with COVID-19 experience symptoms beyond the acute illness (4 or more weeks after infection), while newer evidence notes about 10% to 20% of unvaccinated people and 2% to 10% of vaccinated people experience symptoms 12 weeks beyond the acute illness.^{4,5} It is postulated that this lower prevalence in more recent data is a result of high vaccination rates and less virulent variants.⁴ An estimated 57,000 to 78,000 people in Ontario have had, or are currently experiencing, the post-COVID-19 condition.⁶

ASSESSMENT

- Avoid over-investigation: consider a conservative diagnostic approach in the first 4 to 12 weeks following SARS-CoV-2 infection
- Currently, no laboratory test can definitively distinguish the post-COVID-19 condition from other conditions. Any laboratory tests offered should be based on a patient history, physical examination, and clinical findings. For most people, symptom management and a comprehensive rehabilitation plan can be started at the same time as laboratory tests
- Tailor tests to the person's signs and symptoms to understand if they are likely to have been caused by ongoing symptomatic COVID-19, the post-COVID-19 condition, or a new unrelated diagnosis. Some people may develop new chronic health conditions, such as diabetes, cerebrovascular disease, cardiovascular disease, or mental illness, following a SARS-CoV-2 infection
- Conduct a chest x-ray by 12 weeks after diagnosis of acute COVID-19 if the person has not already had one and they have continuing respiratory symptoms. The results of a chest x-ray alone should not determine the need for referral for further care
- Consider more specialized diagnostic testing for persistent or new respiratory or cardiac concerns in consultation with specialists

Physical Examination and Vital Signs

- Because multiple organ systems may be involved, a thorough physical examination should be completed
- Standard vital signs: blood pressure, heart rate, respiratory rate, pulse oximetry, body temperature, body mass index
- Ambulatory pulse oximetry for people with respiratory symptoms, fatigue, or malaise
- Orthostatic vital signs for people with postural symptoms, dizziness, fatigue, cognitive impairment, or malaise



Assessment Tools

Functional Status and Quality of Life

- [Post-COVID-19 Functional Status scale](#) (PCFS)

Post-COVID-19 Condition

- [COVID-19 Yorkshire Rehabilitation Screening](#) (C19-YRS)

Cognitive/Neurologic Conditions

- [Montreal Cognitive Assessment](#) (MoCA)
- [Mini-Mental State Examination](#) (MMSE)

Mental Health Conditions

- [General Anxiety Disorder-7](#) (GAD-7)
- [Patient Health Questionnaire-9](#) (PHQ-9)



Functional Testing Tools

Exercise Capacity

- 1-minute sit-to-stand (STS) test (consider 30-second STS test in people with PEM)
 - Patient is encouraged to transition from sitting to standing as many times as possible in 1 minute without the use of upper extremities (if possible)
 - A fall in oxygen saturation of $\geq 5\%$ or below 90% for people without known lung pathology (88% with known lung pathology) is considered abnormal⁸
- 10 Meter Walk Test (10MWT)

Balance and Fall Risk

- [Berg Balance Scale](#)
- [Tinetti Gait and Balance Assessment Tool](#)

Other

- [Orthostatic Heart Rate Assessment](#)

Past Medical History

- Perform a comprehensive review of the person's past medical history. Having pre-existing medical conditions is a risk factor for post-COVID-19 condition and can complicate its presentation⁷

Social Determinants of Health

Consider the following, and refer to local services where available:

- Social supports and isolation
- Loss of income
- Food and housing insecurity
- Barriers to accessing health care
- Substance use disorder (screen, if appropriate)



MANAGEMENT

If symptoms are moderate to severe or worsening on the initial visit, consider referral to a relevant specialist or interprofessional rehabilitation team. A list of publicly funded post-COVID-19 condition rehabilitation programs in Ontario can be found [here](#).

Supported Self-Management

- Advise the person that post-COVID-19 condition is not yet well understood and that support will continue to be provided as new information emerges
- Develop a comprehensive management plan through shared decision making and based on presenting symptoms, underlying medical and mental health conditions, personal and social situations, and realistic treatment goals
- For people with fatigue and/or post-exertional malaise (PEM), discuss the 4Ps of energy conservation (**Pacing** activities to match energy level, **Prioritizing** activities that are the most important, **Positioning** to modify activities to make them easier to perform, and **Planning** ahead to allocate for breaks, rests, and relaxation)
- A conservative physical rehabilitation plan might be indicated for some people with PEM. Cautious initiation of exercise may be useful. If there is a risk of falls, advise the person not to exercise alone
- Patient diaries and calendars might be useful for documenting changes in health conditions and symptom severity, and for identifying potential triggers such as exertion (physical and cognitive), foods, menstruation, and treatments or medications
- Provide the World Health Organization's [Support for Rehabilitation: Self-Management After COVID-19 Related Illness](#) leaflet, if appropriate

Medications

- Medications may be helpful for indicated symptoms or illnesses (e.g., headache, anxiety, or depression)
- If over-the-counter medication for pain and/or fever is being considered, acetaminophen may be a safer alternative to non-steroidal anti-inflammatory drugs in people at increased cardiovascular or bleeding risk
- Ask about people's use of supplements, herbal remedies, or other treatments

Mental Health Supports

- Refer to community mental health services and/or provide [ConnexOntario](#) as a resource, as appropriate
- Consider the mental health needs of caregivers as well

Additional Condition-Specific Assessment Tools

Functional Status and Quality of Life

- [EQ-5D-5L](#)
- [WHO Disability Assessment Schedule 2.0](#) (WHODAS 2.0)
- [36-Item Short Form Survey Instrument](#) (SF-36)

Respiratory Conditions

- [Modified Medical Research Council Dyspnea Scale](#) (mMRC)
- [St. George's Respiratory Questionnaire](#) (SGRQ)

Cognitive/Neurologic Conditions

- [Composite Autonomic Symptom Score](#) (COMPASS-31; for dysautonomia)
- [Neurobehavioral Symptom Inventory](#) (NSI)
- [Insomnia Severity Index](#) (ISI)

Mental Health Conditions

- [Hospital Anxiety and Depression Scale](#) (HADS)
- [PTSD Checklist for DSM-5](#) (PCL-5)

Fatigue

- [Fatigue Severity Scale](#) (FSS)
- [Modified Fatigue Impact Scale](#) (MFIS)

Referral to Interprofessional Rehabilitation Teams

- Consider a referral if symptoms are not improving with self-management and have moderate to severe impacts on daily functioning
- Referral to an interprofessional rehabilitation program for the post-COVID-19 condition would be recommended based on a [Post-COVID-19 Functional Status](#) (PCFS) scale score of **3 or 4**
- A list of publicly funded post-COVID-19 condition rehabilitation programs in Ontario can be found [here](#)

Health Care Professional Resources

- [Answers to Frequently Asked Questions About Long COVID](#)—Ontario College of Family Physicians
- [Post-COVID Condition \(Long COVID\)](#)—Ontario College of Family Physicians
- [Assessment, Monitoring and Management of COVID—Hamilton Family Medicine](#), care pathway
- [Ontario eConsult Service for Post-COVID Condition](#)—Ontario eConsult Centre of Excellence
- [SCOPE \(Seamless Care Optimizing the Patient Experience\)](#)—a shared virtual interprofessional care team for primary care providers in Toronto who are unaffiliated with teams
- [Post-COVID-19 Condition](#)—Rehabilitative Care Alliance
- [Long-COVID—An Update for Primary Care](#)—British Medical Journal

Patient Resources

- [CANCOV Patient Resources](#)—Canadian COVID-19 Prospective Cohort Study (CANCOV)
- [COVID-19 Resources for Patients and Families](#)—University Health Network
- [COVID Long-Haulers Canada](#)—patient support and advocacy group
- [Long COVID Resources Canada](#)—patient support and advocacy group

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