

# ENVIRONMENTAL SCAN

08/09/2021

# Environmental Scan and Rapid Review of COVID-19 Symptom Screening Tools for Adults in the Post-vaccination Era

# **Key Findings**

- Most European jurisdictions scanned had a shorter symptoms list, focusing on the most common symptoms associated with SARS-CoV-2 (e.g., fever, cough, shortness of breath or trouble breathing).
- Most Canadian jurisdictions scanned have a dual symptoms list differentiating main symptoms and other non-specific symptoms. The 4 main symptoms consistent across these jurisdictions include fever, cough, loss of sense of taste and/or smell, and shortness of breath or difficulty breathing. Some jurisdictions included symptoms such as sore throat and runny nose as main symptoms, while others categorized them as non-specific symptoms or were not included in the list at all.
- Public health recommendations for individuals experiencing any one of the main symptoms of SARS-CoV-2 are more stringent than for the non-specific symptoms.
- This scan did not identify any jurisdictions that have incorporated changes to their screening tools based on individual vaccination status or increasing vaccination rates in the community.
- This scan did not find any evidence that explored differing symptom presentation for the Delta variant among unvaccinated individuals, although there have been reports on this topic in several news articles.

# **Objectives and Scope**

- Considerations for updates to the COVID-19 symptom screening tool is prompted by the increasing vaccination rates provincially and declining case counts, and recognition that the Delta variant is currently the dominant strain in Ontario.
- This environmental scan follows a similar scan, conducted on June 07, 2021, which reviewed the COVID-19 symptoms list for children.<sup>1</sup>



 Self-isolation and testing guidance for household members of symptomatic individuals was out of scope for this document.

# Methods

- A rapid jurisdictional scan was conducted on July 20 and 21, 2021 and included a review of COVID-19 self-assessment tools and guidance based on symptom screening, with a focus on adult populations (18 years and older) in selected jurisdictions.
- The jurisdictions selected for the scan includes other Canadian provinces and territories (British Columbia (BC), Alberta, Québec, Northwest Territories (NWT)) as well as international organizations and jurisdictions, including European Centre for Disease Prevention and Control (ECDC), United States Centers for Disease Control and Prevention (CDC), Australia, the United Kingdom (UK), France, Ireland, Israel, Scotland and Denmark. See <u>Appendix A</u> for complete scan.
- The PHO Library conducted systematic searches in MEDLINE for peer-reviewed literature in the period from January 1, 2021 to July 21, 2021. A grey literature search (including preprints) was also conducted for the same time period. Relevant results were reviewed and data extracted for syntheses. The search strategies are available upon request.
  - New evidence continues to emerge regarding the Delta variant and the impacts of vaccination on SARS-CoV-2 symptoms. As such, the information provided in this document is only current as of the date of the respective literature searches.

# Background

## Ontario COVID-19 Self-Assessment Tool

The Ontario COVID-19 self-assessment tool (updated July 16, 2021) is recommended to be used for anyone who believes they are experiencing SARS-CoV-2 symptoms or have been exposed to the virus, and provides recommendations for next steps.<sup>2</sup> The symptoms list includes qualifiers that symptoms are new and not related to an underlying condition. It was recently updated to exclude non-specific symptoms occuring in the 48 hours post vaccination. The tool is based on a symptoms list reference document (updated on September 21, 2020) and categorizes a lengthy list of symptoms into common, other and atypical symptoms.<sup>3</sup> However, the self-assessment tool does not differentiate guidance based on these categories. An individual who experiences any one symptom would prompt a recommendation for self-isolation and testing.<sup>2</sup>

## Ontario Vaccination Roll-Out and Re-Opening

The mass delivery of vaccines to the broader adult community began in April 2021, marked by Phase 2 of Ontario's vaccination plan.<sup>4</sup> As vaccination coverage increased and reinstatement of stricter public health measures (e.g., provincial stay-at-home order), Ontario observed a decline in overall case numbers. As a result, Ontario entered the final stage of its three-step "Roadmap to Reopen" plan<sup>5</sup> on



July 16, 2021, which allows increased capacity for both indoor and outdoor gatherings, including the reopening of indoor settings with some restrictions (e.g., fitness facilities, theatres, food establishments).

# Jurisdictional Scan

Jurisdictions have different approaches regarding COVID-19 like symptoms. Some jurisdictions, similar to Ontario, have a very sensitive approach using an exhaustive list of symptoms and individuals with any one of these symptoms are advised to self-isolate and get tested. Other jurisdictions have a more specific approach and recommend self-isolation and testing to those experiencing any symptom included on a shorter symptom list or symptoms they consider key or main symptoms.

None of the jurisdictions scanned, to date, have made changes to their screening tools based on individual vaccination status, overall increasing vaccination rates in the community or presence of Delta and other variants.

## Exhaustive List of Symptoms (similar to Ontario)

## **AUSTRALIA (QUEENSLAND)**

• The State Government of Queensland webpage (updated June 2, 2021) includes an infographic with the full list of COVID-19 symptoms. Muscle or joint pain and loss of appetite were excluded from the list, with these symptoms characterized as other symptoms individuals may experience.<sup>6</sup>

## **CANADA (NORTHWEST TERRITORIES)**

- The NWT self-assessment tool (updated July 16, 2021) is most similar to Ontario in that it consists of one general list of symptoms. It includes skin changes or rash as a symptom, which is not included in Ontario.<sup>7</sup>
- Individuals experiencing any one symptom from the list are advised to stay home and complete the online tool.<sup>8</sup> According to the tool, individuals may be asked to seek testing at the discretion of a health care provider, so it is unclear what are the risk assessment considerations and subsequent public health recommendations.

### ECDC

• The most common symptoms of SARS-CoV-2 highlighted by the ECDC includes symptoms which many other jurisdictions have classified as non-specific symptoms (e.g., headache, rhinorrhea, myalgia), although the supporting evidence referenced dates back to mid and late 2020.<sup>9-11</sup>

## **US CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC)**

- The CDC's symptoms of COVID-19 webpage (last updated February 22, 2021) includes many different symptoms that may be associated with COVID-19.<sup>12</sup>
- The CDC's frequently asked questions for businesses and workplaces recommends that employers encourage their employees to self-screen (no specific tool listed) prior to coming



onsite and not to attempt to enter the workplace if any of the following are present: symptoms of COVID-19 published on their webpage, fever equal to or higher than  $100.4^{\circ}$  (or lower – e.g.,  $100.0^{\circ}$ F – especially in healthcare settings).<sup>13</sup>

The CDC recommends that should they wish to actively screen their employees, employers may not want to manage every employee with a single non-specific symptom (e.g., a headache) as a suspect case of COVID-19, and to consider focusing the screening questions on any "new" or "unexpected" symptom of these 7 symptom-categories for more specific screening: fever or feeling feverish (chills, sweating), new cough, difficulty breathing, sore throat, muscle aches or body aches, vomiting or diarrhea, and new loss of taste or smell. This list excluded non-specific symptoms such as fatigue, headache and congestion or runny nose.

## Dual List of Symptoms

## **CANADA (ALBERTA)**

- Alberta has a differential symptoms list for adults (18+ years old) and children, with a lower threshold for prompting isolation and testing in adults.<sup>14</sup>
- Alberta has a dual symptoms list consisting of 'core' and 'other' symptoms. Alberta's list of 'core' symptoms includes sore throat, which is categorized under 'other' symptoms in the BC tool.
- Individuals experiencing any one of the 'core' symptoms are advised to isolate for 10 days (or until symptoms resolve, whichever is longer) and seek testing. If the individual receives a negative test result, they can discontinue isolation.
- Individuals experiencing any one of the 'other' symptoms are advised to stay home and limit contact with others until their symptoms resolve. Testing is recommended.

### **CANADA (BRITISH COLUMBIA)**

- The BC COVID-19 self-assessment tool<sup>15</sup> (updated July 19, 2021) and the BC Centre for Disease Control (BCCDC)<sup>16</sup> both have a dual symptom list which includes a shorter list of 'key' symptoms (fever, chills, cough, loss of sense of smell or taste, difficulty breathing) and another consisting of 'other' symptoms.
- Individuals experiencing one or more of the 'key' symptoms are advised to isolate and seek testing.
- Individuals experiencing one of the 'other' symptoms are advised to stay home until they feel better; if they experience two or more symptoms, they are advised to stay home for 24 hours and seek testing if symptoms do not get better after 24 hours.

## CANADA (QUÉBEC)

• Quebec's COVID-19 symptoms webpage (updated June 29, 2021) features a lengthy list of what are considered "COVID-like" symptoms, categorized according to fever, general symptoms, respiratory symptoms and gastrointestinal symptoms.<sup>17</sup> Using the Québec self-assessment tool, there is an identification of 'main' (fever, sudden loss of smell without



nasal congestion with or without loss of taste, cough, shortness of breath or difficulty breathing, sore throat) and other less specific symptoms.<sup>18</sup>

- Adults (18 years and older) experiencing any one of the main symptoms OR at least two of the less specific symptoms are advised to isolate and seek testing.
- The self-assessment tool also includes differential guidance for children (6 months to 5 years) and adults.<sup>18</sup>

## Short List of Symptoms

#### DENMARK

- A Danish Health Authority guidance document (updated June 3, 2021) lists 6 typical symptoms of SARS-CoV-2 infection.<sup>19</sup>
- Individuals with any one of these symptoms are advised to isolate, seek testing and pay extra attention to hygiene and cleaning.

#### FRANCE

- Similar to other European countries, France does not have an exhaustive symptoms list (updated July 1, 2021). They list 5 common signs of SARS-CoV-2 (respiratory symptoms, fever, coughing, shortness of breath and breathing difficulties). They do not elaborate on what constitutes a respiratory symptom.<sup>20</sup>
- It is recommended that individuals who have a cough or a temperature (does not mention the other symptoms) stay at home, avoid contact with others and if necessary call a doctor. Testing is also recommended as soon as possible.

#### **IRELAND**

- Ireland's COVID-19 symptoms list (updated June 17, 2021) includes only four common symptoms (fever, new cough, shortness of breath, loss or change to taste or smell), which align with the main symptoms in other jurisdictions with a dual symptoms list.<sup>21</sup>
- Individuals with any one of these symptoms are advised to isolate and seek testing.

#### **ISRAEL**

- The Israeli Ministry of Health's COVID-19 Symptoms webpage (updated December 31, 2020) indicates that the most common "warning signs" for COVID-19 are fever, fatigue, difficulty breathing, dry cough, muscle aches, headaches, sore throat and new loss of taste or smell.<sup>22</sup>
- According to the Israeli guidance on who is required to go into isolation among people with suspected coronavirus symptoms, only individuals with a fever of 38°C or higher are required to immediately self-isolate and advised to get tested. Other individuals presenting with other COVID-19 symptoms such as cough, trouble breathing, loss of taste or smell, or any other respiratory symptom are advised to test for COVID-19 or consult a medical care provider before having close contact with other people.





- Scotland's symptom list (updated July 6, 2021) is brief and includes only three common symptoms (excludes shortness of breath or breathing difficulties as found in most other jurisdictions).<sup>23</sup>
- Individuals experiencing any of these symptoms are advised to isolate and seek testing, with specific advice on optimal timing of testing.<sup>24</sup>

#### UNITED KINGDOM

- UK's main symptoms of COVID-19 webpage (updated July 22, 2021) includes only 3 'main' symptoms (a high temperature, a new continuous cough and a loss or change to smell or taste). Any individual experiencing one or more of these 'main' symptoms is advised to get tested and to self-isolate until they get the test result (they can only leave home to get tested). Their household members should follow the same advice of self-isolation.<sup>25</sup>
- It is noted in the guidance for households that there are other symptoms (not explicitly specified) linked to COVID-19, but these symptoms may be a result of another cause and would not, on their own, be a reason to require testing.<sup>26</sup>

# Literature Review

## Symptom Presentation in Unvaccinated Individuals

- Amongst unvaccinated individuals, the most common symptoms experienced include fever, cough, dyspnea and fatigue. This aligns with what most jurisdictions have included in their self-assessment tools as main symptoms.
  - In a systematic review and meta-analysis of 152 articles and 41,409 patients, da Rosa Mesquita et al. (2020) reported that the most common clinical manifestations were fever (58.7%), cough (54.5%), dyspnea (30.8%), malaise (29.8), fatigue (28.2%) and sputum/secretion (25.3%).<sup>27</sup>
  - In a systematic review and meta-analysis of 41 studies and 16,495 patients, Giri et al. (2021) found that the most commonly reported symptom was fever (78.1%), followed by cough (64.6%), fatigue (40.8%) and dyspnea (38.6%).<sup>28</sup>

## Symptom presentation in vaccinated individuals

- While vaccination against SARS-CoV-2 is very effective, some fully vaccinated individuals may still get infected (breakthrough cases). However, there is evidence that fully vaccinated individuals experience less severe symptoms and are much less likely to be hospitalized or die from SARS-CoV-2 compared to unvaccinated individuals.<sup>29</sup>
- From the following seven studies, the four symptoms that were cited most often include cough, sore throat, headache and loss of smell/taste. In contrast, nasal congestion, muscle



pain and nausea/vomiting/diarrhea were mentioned twice, while sneezing was cited only once.

- In a study by Sabnis et al. (2021; preprint), among 461 fully vaccinated healthcare workers in India, 86 breakthrough COVID-19 infections, occurring 17 to 70 days after receiving a second vaccination, were identified. 80.2% of the cases with breakthrough infections were mild, defined as experiencing various COVID-19 symptoms (e.g., fever, cough, sore throat, malaise, headache, muscle pain, nausea, vomiting, diarrhoea, loss of taste and smell), but not experiencing shortness of breath, dyspnea, or abnormal chest imaging.<sup>30</sup>
- A preliminary report by Dash et al. (2021; preprint) reports on 274 breakthrough COVID-19 infections among individuals in healthcare facilities in India, 14.6% were healthcare workers and 85.4% were non-healthcare workers. 83.2% of breakthrough cases were symptomatic, and 9.9% required hospitalization. The most common symptoms were fever (88.5%), cough (77.6%), and sore throat (59.6%).<sup>31</sup>
- In Greece, Ioannou et al. (2021) reported on 24 breakthrough cases among healthcare workers, in which 79.2% (19/24) were symptomatic, while 20.8% (5/24) were asymptomatic. The most commonly reported symptom was nasal congestion (54.2, 13/24), followed by sore throat (29.2%, 7/24), rhinorrhea (25.0%, 6/24), cough (16.7%, 4/24), fever (8.3%, 2/24), loss of smell/taste (4.2%, 1/24). The mean age (SD) of patients was 41.3 years (10.1). Nasal congestion and rhinorrhea were significantly more prevalence in breakthrough cases compared to non-breakthrough cases (p=0.0001, p=0.035, respectively). 23 of 24 breakthrough cases were infected with the Alpha variant.<sup>32</sup>
- In a study of 10 breakthrough infections in Florida, US, Magalis et al. (2021; preprint), eight were symptomatic and 2 were asymptomatic. The most commonly reported symptom were runny nose (62.5%, 5/8), followed by headache (50.0%, 4/8), sore throat (37.5%, 3/8), fatigue (25.0%, 2/8), loss of smell (12.5%, 1/8), and cough (12.5%, 1/8). Seven of ten patients were healthcare workers. The mean (SD) age of breakthrough cases was 34.0 (15.0).<sup>33</sup>
- In the COVID Symptom Study, the top five symptoms in fully vaccinated individuals were 1) headache, 2) runny nose, 3) sneezing, 4) sore throat, 5) loss of smell. In those not vaccinated the top five symptoms were: 1) headache, 2) sore throat, 3) runny nose, 4) fever, 5) persistent cough. These results are based on unpublished findings, in which the methodology and prevalence of symptoms is not known.<sup>34</sup>

## **Considerations for Delta Variant**

- This scan did not identify any evidence that explored differing symptom presentation for the Delta variant among unvaccinated individuals, although numerous news articles have reported on this topic.<sup>35,36</sup>
- Two studies of breakthrough cases involving the Delta variant showed similarities to the current widely accepted list of common symptoms:





- In a study of 667 breakthrough infections in India, Gupta et al. (2021; preprint) reported that 27.7% (185/667) of patients were asymptomatic and 72.2% (482/667) were symptomatic. The most commonly reported symptom was fever (69%), followed by body ache/headache/nausea (56%), cough (45%), sore throat (37%), loss of taste and smell (22%), diarrhea (6%), difficulty breathing (6%), and ocular irritation and redness (1%). The median age of patients in the study was 44 years (IQR: 31–56). 86.7% (443/511) of sequenced clinical samples showed infection with the Delta variant.<sup>37</sup>
- Farinholt et al. (2021; preprint) reported on 6 breakthrough cases that attend a wedding in Texas, US.<sup>7</sup> The most commonly reported symptom was fatigue (100%, 6/6), followed by fever (83.3%, 5/6), loss of taste/smell (66.7%, 4/6), cough (83.3%, 5/6), body aches (50.0%, 3/6), and difficulty breathing (233.3%, 3/6). The age of patients ranged from 50 to 70 years. All patients were infected with the Delta variant.<sup>38</sup>

# **Public Health Implications**

- Modifications to the COVID-19 screening tool symptoms list could be considered based on increasing vaccination coverage, lower case counts in Ontario and preparedness plan for COVID-19 endemicity. However, there is insufficient information at this time to comment on the use of a differential symptoms list based on individual vaccination status.
- Any changes to the symptom screening list should take into consideration the increasing prevalence of the more transmissible and more severe Delta variant of concern; however, there is still limited evidence on its impact on symptom presentation among vaccinated and unvaccinated individuals.
- Breakthrough cases present with mild symptoms most commonly described as cough, sore throat, headache and loss of smell/taste. There is some evidence suggesting a reduced risk of transmission from asymptomatic breakthrough cases, but limited evidence on risk of asymptomatic transmission from breakthrough cases infected with Delta.<sup>39</sup> It is still recommended that fully vaccinated individuals with symptoms of COVID-19 continue to isolate and be tested.
- With continued reopening, there is a need for a balanced approach which recognizes the importance of a more specific symptoms list for COVID-19 to likely become an endemic infection co-circulating with other respiratory viruses seasonally that have similar symptom presentation. And while remaining vigilant for the emergence of new variants with immune/vaccine escape potential and the need to avoid missing potential cases.
- It is likely that the approaching fall and winter season, with the resurgence of non-COVID respiratory illnesses, will require that screening tools be more sensitive to prevent symptomatic individuals from spreading illness in public settings, whether or not it is SARS-CoV-2. However, symptom screening for prompting testing for SARS-CoV-2 could be more specific, at the risk of missing cases of COVID-19.





- Adopting a dual symptoms list (major/minor) for the purpose of symptom screening of the general population, similar to other Canadian jurisdiction, would lower the threshold for isolation and testing for having any one of the major symptoms or two or more of the minor symptoms including for individuals who are fully vaccinated.
- Another symptoms screening model, based on most European jurisdictions, could be to limit the symptoms list to 3-6 main symptoms (common ones include fever, new or worsening cough, new or worsening shortness of breath/difficulty breathing, and/or new loss of taste/smell). Only those presenting with one of these symptoms will be advised to get tested, and anyone with any symptom (including beyond the main symptoms) would be advised to self-isolate. This model holds more risk to Ontario with the emergence of the Delta variant since cases presenting with symptoms that are not common might be missed with the potential of further transmission from these cases.
- A more sensitive symptom screening approach with a broad set of symptoms compatible with COVID-19 should be utilized for contacts of cases and outbreak management, where there is a high pre-test probability of COVID-19.
- Ongoing monitoring of the overall pandemic epidemiology should continue to inform symptom screening along with updates to the goals of controlling community transmission of SARS-CoV-2.

# Appendix A. Jurisdictional Scan of COVID-19 Self-Assessment Tools

## Exhaustive List of Symptoms

Jurisdiction	Symptom list	Screening Tool Recommendation
Australia (Queensland) <sup>6</sup> Last updated November 2020	Symptoms: • Fever • Cough • Sore throat • Shortness of breath • Runny nose • Fatigue • Diarrhoea • Vomiting or nausea • Loss of smell and/or taste Other symptoms people may experience include: • Muscle or joint pain • Loss of appetite	If you have any of the listed COVID-19 symptoms, no matter how mild, get tested. If you're feeling sick: • Get tested today. • Stay home and isolate until you get the results and your symptoms resolve.
<b>Canada (Northwest Territories)</b> <sup>7,8</sup> Last updated July 2021	Symptoms: • Shortness of breath or difficulty breathing • New or worsening cough • Fever • Loss of sense of smell or taste • Generally feeling unwell • Chills • Muscle aches • Fatigue or weakness	If experiencing any one symptom, isolate and complete self-assessment tool <sup>7</sup> . Individuals with any one symptom may be asked to seek testing at the discretion of a health care provider.

- Sore throat
- Congestion or runny nose
- Headache
- Nausea, vomiting or diarrhea
- Loss of appetite
- Abdominal pain
- Skin changes or rash

#### Symptoms:

<u>Canada (Ontario)</u> <sup>1</sup> Last updated July 2021	<ul> <li>Fever and/or chills</li> <li>Cough or barking cough (croup)</li> <li>Shortness of breath</li> <li>Sore throat</li> <li>Difficulty swallowing</li> <li>Runny or stuffy/congested nose</li> <li>Decrease or loss of taste or smell</li> <li>Pink eye</li> <li>Headache</li> <li>Digestive issues like nausea, vomiting, diarrhea, stomach pain</li> <li>Muscle aches/join pain</li> <li>Extreme tiredness</li> <li>Falling down often (older people)</li> </ul>	If experiencing any one symptom, isolate and get tested.
US Centers for Disease Control and Prevention (CDC) <sup>12,13</sup> Last updated June 2021	<ul> <li>Have you experienced any of the following symptoms in the past 48 hours:</li> <li>fever or chills</li> <li>cough</li> <li>shortness of breath or difficulty breathing</li> <li>fatigue</li> <li>muscle or body aches</li> </ul>	Differential recommendations based on vaccination status. However, testing is recommended if any symptoms, regardless of vaccination status.

•	headache
•	new loss of taste or smell
•	sore throat
•	congestion or runny nose
•	nausea or vomiting
•	diarrhea

# Dual List of Symptoms

Jurisdiction	Symptom list	Screening Tool Recommendation
<u>Canada (Alberta)</u> <sup>14</sup>	<ul> <li>Core symptoms for adults:</li> <li>Cough</li> <li>Fever</li> <li>Shortness of breath</li> <li>Runny nose</li> <li>Sore throat</li> <li>Loss of taste or smell</li> <li>Get tested and isolate for 10 days (or until symptoms resolve, whichever is longer) or until test negative</li> </ul>	Differential symptom list for adults (18+) and children (higher threshold). Stay home and limit contact with others until symptoms resolve, testing recommended.
	Others: • Stuffy nose • Painful swallowing • Chills • Headache • Muscle or joint aches • Feeling unwell or fatigue	

- Nausea, vomiting, diarrhea or unexplained loss of appetite
- Conjunctivitis

#### Key symptoms:

- Fever (above 38°C)
- Chills
- Cough
- Loss of sense of smell or taste
- Difficulty breathing

#### Canada (British Columbia)<sup>15,16</sup>

Last updated July 2021

#### Others:

- Sore throat
- Loss of appetite
- Extreme fatigue or tiredness
- Headache
- Body aches
- Nausea or vomiting
- Diarrhea

#### For key symptoms:

• Get tested and isolate if you have 1 or more symptom.

#### For other symptoms:

- Stay home until you feel better for 1 minor symptom;
- Stay home for 24 hours if you have 2 or more other (minor) symptoms; and

Get tested if not better after 24 hours.

#### Symptoms:

General:

- Fever (38°C and above)
- Sudden loss of smell without nasal congestion, with or without loss of taste
- Great fatigue
- Significant loss of appetite
- Generalized muscle pain (not related to physical exertion)
- Headache

Differential guidance for children 6 months to 5 years.

# COVID-19 self-assessment tool<sup>18</sup> recommendations:

- For adults (18+) experiencing any one of the bolded symptoms, recommend isolate and test
- For adults experiencing at least 2 of the non-bolded symptoms recommend isolate and test

Canada (Québec)<sup>17,18</sup>

If not tested, self-isolate for 10 days from onset of symptoms.

#### Respiratory:

- Cough (new or worse)
- Shortness of break or difficult breathing
- Sore throat

#### Gastrointestinal:

- Nausea, vomiting, diarrhea
  - Stomach aches

## Short List of Symptoms

Jurisdiction	Symptom list	Screening Tool Recommendation
<mark>Denmark<sup>19</sup> Last updated June 2021</mark>	<ul> <li>Typical symptoms of COVID-19 include:</li> <li>Fever</li> <li>Dry cough</li> <li>Difficulty breathing</li> <li>Loss of sense of taste and smell</li> <li>Fatigue</li> <li>Sore throat</li> </ul>	If you develop symptoms and are unsure whether it is COVID-19, you should act as if you are infected with COVID-19: • Self-isolate • Pay extra attention to hygiene and cleaning • Arrange to be tested
<b>France<sup>20</sup></b> Last updated July 2021	Common signs of COVID-19 infection include: <ul> <li>Respiratory symptoms</li> <li>Fever</li> <li>Coughing</li> <li>Shortness of breath</li> <li>Breathing difficulties</li> </ul>	It is recommended that individuals with a cough or temperature stay at home, avoid contact with others and if necessary call a doctor. It is also recommended to get tested as soon as possible.

Common	symptoms	include:
--------	----------	----------

- Fever (high temperature 38° Celsius or above)
- New cough (this can be any kind of cough, not just dry)
- Shortness of breath or breathing difficulties
- Loss or change to your sense of smell or taste (this means you've noticed you cannot smell or taste anything, or things smell or taste different to normal)

If you have any common symptoms:

- Self-isolate
- Get a COVID-19 test

<mark>Israel</mark> <sup>22</sup> Last updated December 2020	<ul> <li>The most common warning signs are:</li> <li>Fever</li> <li>Fatigue</li> <li>Difficulty breathing</li> <li>Dry cough</li> <li>Muscle aches</li> <li>Headaches</li> <li>Sore throat</li> <li>New loss of taste or smell</li> </ul>	Only individuals with a fever of 38°C or higher are required to immediately self-isolate and advised to get tested. Other individuals presenting with other COVID-19 symptoms are advised to get tested or consult a medical care provider before having close contact with other people.
<mark>Scotland</mark> <sup>23,24</sup> Last updated July 2021	<ul> <li>COVID-19 symptoms:</li> <li>High temperature or fever</li> <li>New continuous cough (a new, continuous cough means coughing for longer than an hour, or three or more coughing episodes in 24 hours. If you usually have a cough, it may be worse than usual)</li> </ul>	<ul> <li>Individuals who any of these symptoms are advised to:</li> <li>Self-isolate</li> <li>Get tested (specific advice on optimal timing for testing provided)</li> </ul>

## Ireland<sup>21</sup>

Last updated June 2021

• Loss of, or change in, sense of smell or taste

The main symptoms of coronavirus (COVID-19) are:

- A high temperature this means you feel hot to touch on your chest or back (you do not need to measure your temperature).
- A new, continuous cough this means coughing a lot for more than an hour, or 3 or more coughing episodes in 24 hours (if you usually have a cough, it may be worse than usual).
- A loss or change to your sense of smell or taste – this means you've noticed you cannot smell or taste anything, or things smell or taste different to normal.

Individuals experiencing one or more of these main symptoms are advised to get tested and self-isolate. Household members are also advised to stay at home until the symptomatic individual gets their test result.

United Kingdom<sup>25,26</sup>

Last updated July 2021

# References

- Ontario Agency for Health Protection and Promotion (Public Health Ontario). COVID-19 screening tools for children in the post-vaccination era [Internet]. Toronto, ON: Queen's Printer for Ontario; 2021 [cited 2021 Aug 5]. Available from: <u>https://www.publichealthontario.ca/-/media/documents/ncov/sch/2021/07/covid-19-screening-tools-children-postvaccination.pdf?sc\_lang=en
  </u>
- Ontario. Ministry of Health. COVID-19 self-assessment [Internet]. Version 5. Toronto, ON: Queen's Printer for Ontario; 2021 [modified 2021 Jul 16; cited 2021 Jul 22]. Available from: <u>https://covid-19.ontario.ca/self-assessment/</u>
- Ontario. Ministry of Health. COVID-19 reference document for symptoms [Internet]. Version 7.0. Toronto, ON: Queen's Printer for Ontario; 2020 [modified 2020 Sep 21; cited 2021 Jul 22]. Available from: <u>https://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/2019\_reference\_doc\_symptoms.pdf</u>
- Government of Ontario. Ontario's COVID-19 vaccination plan [Internet]. Toronto, ON: Queen's Printer for Ontario; 2021 [modified 2021 Jun 12; cited 2021 Jul 22]. Available from: <u>https://covid19.ontario.ca/ontarios-covid-19-vaccination-plan</u>
- Government of Ontario. Reopening Ontario [Internet]. Toronto, ON: Queen's Printer for Ontario; 2020 [modified 2021 Jun 14; cited 2021 Jul 22]. Available from: <u>https://www.ontario.ca/page/reopening-ontario</u>
- Queensland Government. Symptoms of coronavirus (COVID-19) [Internet]. Melbourne: State of Queensland; 2021 [modified 2021 Jun 2; cited 2021 Jul 22]. Available from: <u>https://www.qld.gov.au/health/conditions/health-alerts/coronavirus-covid-19/stay-informed/symptoms-of-novel-coronavirus-covid-19-comparison</u>
- Government of Northwest Territories. COVID-19 information: general COVID-19 screening tool [Internet]. Yellowknife, NT: Government of Northwest Territories; 2021 [modified 2021 May 21; cited 2021 Jun 17]. Available from: <u>https://www.gov.nt.ca/covid-19/sites/covid/files/resources/cv19\_general\_screening\_tool\_en\_0.pdf</u>
- Government of Northwest Territories. COVID-19 self-assessment [Internet]. Yellowknife, NT: Government of Northwest Territories; 2021 [cited 2021 Jul 22]. Available from: <u>https://www.surveymonkey.com/r/nwt-covid19-self-assessment</u>
- European Centre for Disease Prevention and Control. Clinical characteristics of COVID-19 [Internet]. Stockholm: European Centre for Disease Prevention and Control; 2021 [modified 2021 Jun 4; cited 2021 Jul 22]. Available from: <u>https://www.ecdc.europa.eu/en/covid-19/latest-evidence/clinical</u>
- Lechien JR, Chiesa-Estomba CM, Place S, Van Laethem Y, Cabaraux P, Mat Q, et. al. Clinical and epidemiological characteristics of 1420 European patients with mild-to-moderate coronavirus disease 2019. J Intern Med. 2020;288(3):335-44. Available from: <u>https://doi.org/10.1111/joim.13089</u>

- Pritchard MG, ISARIC Clinical Characterisation Group. COVID-19 symptoms at hospital admission vary with age and sex: ISARIC multinational study. medRxiv 20219519 [Preprint].
   2020 Nov 19 [cited 2021 Jul 22]. Available from: <u>https://doi.org/10.1101/2020.10.26.20219519</u>
- 12. Centers for Disease Control and Prevention. Symptoms of COVID-19 [Internet]. Atlanta, GA: Centers for Disease Control and Prevention; 2021 [modified 2021 Feb 22; cited 2021 Jul 22]. Available from: <u>https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html</u>
- Centers for Disease Control and Prevention. General business frequently asked questions [Internet]. Atlanta, GA: Centers for Disease Control and Prevention; 2021 [archived; modified 2021 May 24; cited 2021 Jul 22]. Available from: <u>https://www.cdc.gov/coronavirus/2019-ncov/community/general-business-faq.html#Reducing-the-Spread-of-COVID-19-in-Workplaces</u>
- 14. Government of Alberta. Symptoms and testing [Internet]. Edmonton, AB: Government of Alberta; 2021 [cited 2021 Jul 22]. Available from: <u>https://www.alberta.ca/covid-19-testing-in-alberta.aspx#jumplinks-0</u>
- British Columbia. Ministry of Health; Thrive Health. BC COVID-19 self-assessment tool [Internet]. Vancouver, BC: Government of British Columbia; 2021 [cited 2021 Jul 22]. Available from: <u>https://bc.thrive.health/covid19/en</u>
- 16. BC Centre for Disease Control. Symptoms: symptoms of COVID-19 [Internet]. Vancouver, BC: Provincial Health Services Authority; 2021 [cited 2021 Jul 22]. Available from: <u>http://www.bccdc.ca/health-info/diseases-conditions/covid-19/about-covid-19/symptoms</u>
- Gouvernement du Québec. Symptoms, transmission and treatment [Internet]. Québec, QC: Gouvernement du Québec; 2021 [cited 2021 Jul 22]. Available from: <u>https://www.quebec.ca/en/health/health-issues/a-z/2019-coronavirus/symptoms-</u> <u>transmission-treatment#c79520</u>
- Gouvernement du Québec. COVID-19 symptom self-assessment tool [Internet]. Québec, QC: Gouvernement du Québec; 2021 [cited 2021 Jul 22]. Available from: <u>https://covid19.quebec.ca/surveys/cdd2/introduction</u>
- 19. Danish Health Authority. What to do if you have symptoms of COVID-19 [Internet]. Copenhagen: Danish Health Authority; 2021 [cited 2021 Jul 22]. Available from: <u>https://www.sst.dk/-/media/Udgivelser/2020/Corona/Overs%C3%A6ttelser/symptomer-</u> engelsk.ashx?la=en&hash=77B3779C6255A3AE8E2DB2EAB262EAFBE2EDF92B
- 20. Government of France. Restrictions and requirements in metropolitan France [Internet]. Government of France; 2021 [cited 2021 Jul 22]. Available from: https://www.gouvernement.fr/en/coronavirus-covid-19
- 21. Ireland. Health Service Executive. Symptoms of COVID-19 [Internet]. Dublin: Health Service Executive; 2021 [cited 2021 Jul 22]. Available from: https://www2.hse.ie/conditions/covid19/symptoms/overview/
- 22. Israel. Ministry of Health. COVID-19 symptoms [Internet]. Jerusalem: State of Israel; 2020 [modified 2020 Dec 31; cited 2021 Jul 22]. Available from: <u>https://www.gov.il/en/departments/general/symptoms-corona</u>

- 23. Scotland. NHS inform. Coronavirus (COVID-19): guidance for households with possible coronavirus infection [Internet]. Glasgow: NHS inform; 2021 [modified 2021 Jul 6; cited 2021 Jul 22]. Available from: <a href="https://www.nhsinform.scot/illnesses-and-conditions/infections-and-poisoning/coronavirus-covid-19/test-and-protect/coronavirus-covid-19-guidance-for-households-with-possible-coronavirus-infection">https://www.nhsinform.scot/illnesses-and-conditions/infections-and-poisoning/coronavirus-covid-19/test-and-protect/coronavirus-covid-19-guidance-for-households-with-possible-coronavirus-infection</a>
- 24. Scotland. NHS inform. Coronavirus (COVID-19): get a test if you have symptoms [Internet]. Glasgow: NHS inform; 2021 [modified 2021 Jun 8; cited 2021 Jul 22]. Available from: <u>https://www.nhsinform.scot/illnesses-and-conditions/infections-and-poisoning/coronaviruscovid-19/test-and-protect/coronavirus-covid-19-get-a-test-if-you-have-symptoms</u>
- 25. United Kingdom. National Health Service (NHS). Main symptoms of coronavirus (COVID-19) [Internet]. London: Crown Copyright; 2021 [modified 2021 Jul 22; cited 2021 Jul 22]. Available from: <u>https://www.nhs.uk/conditions/coronavirus-covid-19/symptoms/main-symptoms/</u>
- Public Health England. Stay at home: guidance for households with possible or confirmed coronavirus (COVID-19) infection [Internet]. London: Crown Copyright; 2021 [modified 2021 Jul 19; cited 2021 Jul 22]. Available from: <a href="https://www.gov.uk/government/publications/covid-19-stay-at-home-guidance/stay-at-home-guidance-for-households-with-possible-coronavirus-covid-19-infection#symptoms">https://www.gov.uk/government/publications/covid-19-stay-at-home-guidance/stay-at-home-guidance-for-households-with-possible-coronavirus-covid-19-infection#symptoms</a>
- 27. da Rosa Mesquita R, Francelino Silva Junior LC. Clinical manifestations of COVID-19 in the general population: systematic review. Wiener klinische Wochenschrift. 2020;133(7-8):377-82. Available from: <a href="https://doi.org/10.1007/s00508-020-01760-4">https://doi.org/10.1007/s00508-020-01760-4</a>
- Giri M, Puri A, Wang T, Guo S. Comparison of clinical manifestations, pre-existing comorbidities, complications and treatment modalities in severe and non-severe COVID-19 patients: a systemic review and meta-analysis. Sci Prog. 2021;104(1):368504211000906. Available from: <a href="https://doi.org/10.1177/00368504211000906">https://doi.org/10.1177/00368504211000906</a>
- 29. Centers for Disease Control and Prevention. What you should know about the possibility of COVID-19 illness after vaccination [Internet]. Atlanta, GA: Centers for Disease Control and Prevention; 2021 [modified 2021 Jun 25; cited 2021 Jul 22]. Available from: <u>https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness/why-measure-effectiveness/breakthrough-cases.html</u>
- Sabnis R, Patil A, Shete N, Rastogi AK. Break-through COVID-19 infection rate with Indian strain in single-center healthcare workers – a real world data. medRxiv 21258881 [Preprint]. 2021 Jul 7 [cited 2021 Jul 22]. Available from: <u>https://doi.org/10.1101/2021.07.02.21258881</u>
- Dash C, Subhada S, Turuk J, Paraoi D, Rath S, Sabat J, et al. Breakthrough SARS-CoV-2 infections in an eastern state of India: a preliminary report. Res Sq 649914 [Preprint]. 2021 Jun 24 [cited 2021 Jul 22]. Available from: <u>https://doi.org/10.21203/rs.3.rs-649914/v2</u>
- Ioannou P, Karakonstantis S, Astrinaki E, Saplamidou S, Vitsaxaki E, Hamilos G, et al. Transmission of SARS-CoV-2 variant B.1.1.7 among vaccinated health care workers. Infect Dis (Lond). 2021:1-4. Available from: <u>https://doi.org/10.1080/23744235.2021.1945139</u>
- 33. Magalis BR, Mavian C, Tagliamonte M, Rich SN, Cash M, Riva A, et al. SARS-CoV-2 infection of BNT162b2(mRNA)-vaccinated individuals is not restricted to variants of concern or high-risk

exposure environments. medRxiv 21257237 [Preprint]. 2021 Jul 16 [cited 2021 Jul 22]. Available from: <u>https://doi.org/10.1101/2021.05.19.21257237</u>

- ZOE COVID Study. What are the new top 5 COVID symptoms? [Internet]. London: ZOE COVID Study; 2021 [modified 2021 Jun 25; cited 2021 Jul 22]. Available from: <u>https://covid.joinzoe.com/post/new-top-5-covid-symptoms</u>
- 35. Taylor B. Too soon to tell if Delta variant symptoms are different: experts. CTV News [Internet], 2021 Jun 16 [cited 2021 Jul 22]; Coronavirus. Available from: <u>https://www.ctvnews.ca/health/coronavirus/too-soon-to-tell-if-delta-variant-symptomsaredifferent-experts-1.5473096</u>
- 36. Carlton B. New COVID-19 symptoms? Doctors say Delta variant 'acts differently'. Dogwood [Internet], 2021 Jul 15 [cited 2021 Jul 22]; Coronavirus. Available from: <u>https://vadogwood.com/2021/07/15/new-covid-19-symptoms-doctors-say-delta-variant-actsdifferently/</u>
- Gupta N, Kaur H, Yadav P, Mukhopadhyay L, Sahay RR, Kumar A, et al. Clinical characterization and Genomic analysis of COVID-19 breakthrough infections during second wave in different states of India. medRxiv 21260273 [Preprint]. 2021 Jul 15 [cited 2021 Jul 22]. Available from: <u>https://doi.org/10.1101/2021.07.13.21260273</u>
- Farinholt T, Doddapaneni H, Qin X, Menon V, Meng Q, Metcalf G, et al. Transmission event of SARS-CoV-2 Delta variant reveals multiple vaccine breakthrough infections. medRxiv 21258780 [Preprint]. 2021 Jul 12 [cited 2021 Jul 22]. Available from: https://doi.org/10.1101/2021.06.28.21258780
- Ontario Agency for Health Protection and Promotion (Public Health Ontario). Evidence brief: risk of COVID-19 transmission from vaccinated cases [Internet]. Toronto, ON: Queen's Printer for Ontario; 2021 [cited 2021 Jul 22]. Available from: <u>https://www.publichealthontario.ca/-/media/documents/ncov/phm/2021/06/covid-19-transmission-vaccinatedcases.pdf?sc\_lang=en
  </u>

# Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario). Environmental scan and rapid review of COVID-19 symptom screening tools for adults in the post-vaccination era. Toronto, ON: Queen's Printer for Ontario; 2021.

© Queen's Printer for Ontario, 2021

# Disclaimer

This document was developed by Public Health Ontario (PHO). PHO provides scientific and technical advice to Ontario's government, public health organizations and health care providers. PHO's work is guided by the current best available evidence at the time of publication. The application and use of this document is the responsibility of the user. PHO assumes no liability resulting from any such application or use. This document may be reproduced without permission for non-commercial purposes only and provided that appropriate credit is given to PHO. No changes and/or modifications may be made to this document without express written permission from PHO.

# Public Health Ontario

Public Health Ontario is an agency of the Government of Ontario dedicated to protecting and promoting the health of all Ontarians and reducing inequities in health. Public Health Ontario links public health practitioners, front-line health workers and researchers to the best scientific intelligence and knowledge from around the world.

For more information about PHO, visit publichealthontario.ca

©Queen's Printer for Ontario, 2021

