

COVID-19

Canada Border Testing Program: Understanding the data

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This page provides background information about the Canada Border Testing Program (CBTP), including mandatory random testing (MRT) for fully vaccinated travellers. It also includes technical notes and definitions to help you understand the data.

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The Canada Border Testing Program

The Canada Border Testing Program (CBTP) was in place from February 22, 2021 to September 30, 2022. The purpose of the program was to:

- **detect** and isolate infected travellers
- **monitor** the number of positive COVID-19 test results among travellers entering Canada, to help inform adjustments to border policies and actions
- **identify** new variants of concern and variants of interest (VOC/VOI) coming into Canada

Samples from travellers who tested positive for COVID-19 were sent to either a provincial public health laboratory or the National Microbiology Laboratory for sequencing. These labs used whole-genome sequencing to identify new variants of COVID-19.

The CBTP included arrival and post-entry testing. The number and types of tests that travellers had to complete depended on the requirements in place at the time. Testing requirements in place during each phase of the CBTP are described in more detail in the [Timeline](#) below.

The CBTP ended on September 30, 2022, at 23:59 (EDT).

Mandatory random testing

Mandatory random testing (MRT) was introduced on August 9, 2021 to monitor trends in the percentage of COVID-19 tests that were positive among fully vaccinated international travellers. Once MRT was in place, we no longer tested all fully vaccinated travellers upon entry into Canada. Instead, only a random selection of travellers had to take an arrival test.

Eligible travellers were randomly selected for MRT each day at select airports and land border crossings. Due to the randomness of selection, more than one person in a group travelling together could be selected for MRT. A person could be randomly selected more than once if they travelled outside Canada multiple times.

Testing requirements

As the COVID-19 situation evolved, Canada's border measures, including testing requirements, were adjusted.

Overview of border testing requirements

Starting January 7, 2021, air travellers aged 5 and older had to provide proof of a valid molecular pre-entry test result. This requirement was extended to land travellers starting February 15, 2021.

From February 22 to July 4, 2021, all travellers aged 5 and older also had to take a molecular test:

- upon entry into Canada (arrival test), and
- post-entry, on Day 10 or Day 8 of quarantine (Day-10 testing was replaced with Day-8 testing on April 23, 2021)

Travellers who tested positive on their arrival test didn't have to re-test on Day 10 or Day 8 of quarantine.

Starting July 5, 2021, travellers entering Canada were subject to different testing requirements depending on whether or not they were fully vaccinated:

- **Fully vaccinated travellers** no longer had to take a post-entry test, and from August 9, 2021 onwards, only had to take an arrival test if selected for MRT. MRT remained in place until the end of the CBTP on September 30, 2022 (with some exceptions). Fully vaccinated travellers still had to provide proof of a valid pre-entry test result until March 31, 2022, after which this requirement was lifted.
- **Partially/unvaccinated travellers** had to continue to provide proof of a valid pre-entry test result, as well as take an arrival and post-entry test. The only exception was for partially/unvaccinated children aged 5 to 11 who were travelling with a fully vaccinated adult. Starting February 28, 2022, these children were eligible for random testing on arrival (similar to MRT) and didn't have to take a post-entry test. The pre-entry testing requirement ended for these children on April 25, 2022.

Children under 5 were exempt from all border testing requirements throughout the CBTP.

Canada Border Testing Program phases

Test result data is organized into distinct periods of time, called phases. Phases were created as a reporting tool, to capture key changes to border testing requirements over time, particularly where these may have had an impact on test positivity. This timeline describes the testing requirements that were in place at Canada's borders during each phase of the CBTP.

Phase 0 corresponds to [Figure 1 of the COVID-19 Test Result Data page](#). Phases 1 to 7 correspond to the shaded boxes in [Figure 2 of the COVID-19 Test Result Data page](#).

Phase 0: February 22 to July 4, 2021

- All travellers had to take an arrival test and a post-entry test on either Day 10 (February 22 to April 22, 2021) or Day 8 (April 23 to July 4, 2021) of their mandatory quarantine.
- All travellers had to provide proof of a valid molecular pre-entry test result.

Phase 1: July 5 to August 8, 2021

- Fully vaccinated travellers no longer had to take a post-entry (Day-8) test. They still had to take an arrival test.
- Partially/unvaccinated travellers still had to take an arrival test and post-entry (Day-8) test.
- All travellers had to provide proof of a valid molecular pre-entry test result.

Phase 2: August 9 to November 27, 2021

- Mandatory random testing (MRT) was introduced for fully vaccinated travellers. These travellers only had to take an arrival test if randomly selected.
- As of August 9, 2021, fully vaccinated residents of the United States were allowed into Canada for non-essential travel.
- As of September 7, 2021, fully vaccinated foreign nationals (travellers who were not citizens or residents of Canada) were allowed into Canada for non-essential travel.
- Partially/unvaccinated travellers still had to take an arrival test and post-entry (Day 8) test.
- All travellers had to provide proof of a valid molecular pre-entry test result.

Phase 3: November 28, 2021 to February 27, 2022

- In response to the Omicron variant, arrival testing for fully vaccinated air travellers coming to Canada from any country except the United States was gradually increased to 100% (that is, all travellers were tested).
- MRT continued for fully vaccinated air and land travellers who only travelled to and from the United States.
- Partially/unvaccinated travellers still had to take an arrival test and post-entry (Day-8) test.
- All travellers had to provide proof of a valid molecular pre-entry test result.

Phase 4: February 28 to March 31, 2022

- MRT resumed for all fully vaccinated travellers arriving by air or land, regardless of their travel history.
- Random testing was introduced for partially/unvaccinated children aged 5 to 11 accompanied by a fully vaccinated adult. These children only had to take an arrival test if randomly selected. They did not have to take a post-entry (Day-8) test.
- Partially/unvaccinated travellers aged 12 and older, and partially/unvaccinated children aged 5 to 11 who weren't accompanied by a fully vaccinated adult, still had to take an arrival test and post-entry (Day-8) test.
- Pre-entry testing options were expanded to include antigen tests, for all travellers. Molecular tests were still accepted.

Phase 5: April 1 to June 10, 2022

- MRT continued for all fully vaccinated travellers.
- Random arrival testing continued for partially/unvaccinated children aged 5 to 11 accompanied by a fully vaccinated adult.
- Partially/unvaccinated travellers aged 12 and older, and partially/unvaccinated children aged 5 to 11 who weren't accompanied by a fully vaccinated adult, still had to take an arrival test and post-entry (Day-8) test.
- As of April 1, 2022, fully vaccinated travellers no longer had to provide proof of a valid pre-entry test result.
- As of April 25, 2022, partially/unvaccinated children aged 5 to 11 accompanied by a fully vaccinated adult no longer had to take a pre-entry test. All other partially/unvaccinated travellers still had to provide proof of a valid pre-entry test result.

Phase 6: June 11 to July 18, 2022

- MRT was paused for fully vaccinated air travellers as part of a broader strategy to move COVID-19 testing out of airports. It remained in effect at the land border.
- Random arrival testing was also paused for partially/unvaccinated air travellers aged 5 to 11 accompanied by a fully vaccinated adult. It remained in effect at the land border.
- Partially/unvaccinated travellers aged 12 and older, and partially/unvaccinated children aged 5 to 11 who weren't accompanied by a fully vaccinated adult, still had to provide proof of a valid pre-entry test result and take an arrival test and a post-entry (Day-8) test.

Phase 7: July 19 to September 30, 2022

- MRT resumed for fully vaccinated air travellers. Random arrival testing also resumed for partially/unvaccinated air travellers aged 5 to 11 accompanied by a fully vaccinated adult.
- Testing moved off-site from airports for all air travellers. Tests were instead completed at select test sites and pharmacies, or via virtual appointments.
- Partially/unvaccinated travellers aged 12 and older, and partially/unvaccinated children aged 5 to 11 who weren't accompanied by a fully vaccinated adult, still had to provide proof of a valid

pre-entry test result and take an arrival test and a post-entry (Day-8) test.

End of Canada Border Testing Program: September 30, 2022, at 23:59 (EDT)

- All COVID-19 emergency border measures, including testing, ended.
- Travellers no longer have to take a pre-entry, arrival or post-entry test. This includes MRT.

Technical notes

All data on the COVID-19 test result data page come from the Canada Border Testing Program (CBTP) dataset at the Public Health Agency of Canada (PHAC). This includes:

- information about the traveller and trip, such as vaccination status and countries visited in the past 14 days. This was collected from travellers:
 - up to 72 hours before entering Canada, using ArriveCAN
 - at the land border or airport, by a border services officer, **or**
 - at the land border or airport, using traveller-completed paper forms
- information on the traveller's enrollment into MRT
- test result data for arrival and post-entry tests taken as part of the CBTP. Test result data was reported to PHAC by the testing laboratories. These labs were under contract to administer COVID-19 testing to travellers in the CBTP, on behalf of PHAC.

Data for this page was exported from the CBTP dataset on October 4, 2022.

Figures 1 and 2 show the percentage of conclusive arrival and post-entry test results that were positive for COVID-19, among travellers tested as part of the CBTP.

This is **not** the same as the percentage of travellers entering Canada who had COVID-19, because:

- **Each test result doesn't necessarily represent a unique traveller.** Travellers may have multiple test results (and therefore appear multiple times in the CBTP dataset), for the same week if:
 - they entered Canada by air or land multiple times in the same week, and had to take a post-entry test each time
 - they entered Canada only once in a given week, but had to take a test on arrival as well as post-entry. This includes all travellers tested as part of the CBTP from February 22 to July 4, 2021, as well as most partially/unvaccinated travellers who entered Canada from July 5, 2021 to September 30, 2022.

- **Not all travellers entering Canada were tested.** Some travellers were completely exempt from border testing (for example, all children under the age of 5), and others only had to test if randomly selected (MRT for fully vaccinated travellers).

The following test results are excluded from Figures 1 and 2.

- Indeterminate or invalid test results. Only conclusive test results (either positive or negative) are used to calculate the percentage of COVID-19 tests that were positive.
- Test results that were missing information about mode of travel and, therefore, couldn't be grouped into air or land.
- Test results for fully vaccinated travellers who had different testing requirements than other fully vaccinated travellers at the time, including:
 - those who arrived on designated flights from Morocco and India, in August and September 2021, respectively
 - those who entered Canada between November 28 and December 18, 2021, and had recently travelled to Botswana, Egypt, Eswatini, Lesotho, Malawi, Mozambique, Namibia, Nigeria, South Africa or Zimbabwe.
- From July 5, 2021 onwards, test results that were missing information about vaccination and MRT enrollment and, therefore, couldn't be grouped into partially/unvaccinated or fully vaccinated.
- From June 11, 2022 onwards, test results for fully vaccinated travellers who were **not** enrolled in MRT.

Test results from the above traveller groups are still included in the test volume and test completion metrics.

Test results are grouped into air or land, based on how the traveller came into Canada. Previous modes of travel, even if used right before a traveller's trip to Canada, aren't considered when assigning mode of travel. For example, if a traveller flew into the United States from Germany on Wednesday, and then drove into Canada on Thursday, they would be classified as a land traveller entering Canada on Thursday.

Test results are grouped into partially/unvaccinated or fully vaccinated from July 5, 2021 onwards. This is based on the following pieces of information in the CBTP dataset:

- Vaccination information shows whether or not the traveller was fully vaccinated when entering Canada. Broadly speaking, travellers qualified as fully vaccinated if they:
 - were symptom free, **and**
 - had completed a primary series of a COVID-19 vaccine that was approved by the Government of Canada for the purposes of travel, at least 14 days before entering Canada
- MRT enrollment information shows whether or not the traveller was randomly selected and enrolled into MRT. Only fully vaccinated travellers were eligible for MRT.

Test results from fully vaccinated travellers, including those enrolled in MRT, were classified as fully vaccinated. Test results from travellers who did not qualify as fully vaccinated were classified as partially/unvaccinated.

Importantly, MRT only began on August 9, 2021, and was temporarily paused for some fully vaccinated travellers in winter 2021/2022. Therefore, not all test results from fully vaccinated travellers in the CBTP were collected as part of MRT.

The week of entry is based on the traveller's date of entry into Canada at the air or land border.

Definitions

- **International travellers:** Canadians and foreign nationals who entered Canada from abroad. This group is distinct from domestic travellers, who only travelled within Canada, and did not enter Canada from abroad.
- **Primary series of an approved COVID-19 vaccine:** For the purposes of travel, a person who has completed 2 doses of a 2-dose vaccine (such as Pfizer-BioNTech Comirnaty) or 1 dose of a 1-dose vaccine (Janssen Jcovden) of any vaccine approved by the Government of Canada. This doesn't include booster doses.
- **Vaccination status**
 - **Fully vaccinated:** Travellers who qualified as fully vaccinated, for the purposes of the CBTP. Broadly speaking, travellers were considered fully vaccinated if they:
 - were symptom free, and
 - had completed a primary series of a COVID-19 vaccine that was approved by the Government of Canada for the purposes of travel, at least 14 days before entering Canada
 - **Partially/unvaccinated:** Travellers who didn't qualify as fully vaccinated, and weren't exempt from border testing requirements. These include travellers who:
 - had not received any doses of a COVID-19 vaccine

- had received one dose of a two-dose COVID-19 vaccine, or
 - had completed a primary series of a COVID-19 vaccine that was not approved by the Government of Canada for the purposes of travel
- **Weekly percentage of tests that were positive:** The number of positive arrival and post-entry test results for that week divided by the sum of the number of positive plus the number of negative arrival and post-entry test results for that same week. The result is then multiplied by 100 to get a percentage.
- **Test requirements**
 - **Pre-entry test:** International travellers entering Canada may have had to provide proof of:
 - a negative COVID-19 molecular test, taken no more than 72 hours before their scheduled flight or arrival at the land border, or
 - recovery from COVID-19. Only positive molecular test results taken within a defined timeframe were accepted as proof of recovery, or
 - a negative COVID-19 antigen test, taken no more than one day before their scheduled flight or arrival at the land border. This came into effect on February 28, 2022.
 - **Arrival test:** International travellers may have had to take a COVID-19 molecular test upon arrival to Canada.
 - **Post-entry tests:** International travellers may have had to take a COVID-19 molecular test on Day 10 (February 22 to April 22, 2021) or Day 8 (April 23, 2021 to September 30, 2022) of their mandatory quarantine.
- **COVID-19 test types**
 - **Molecular test:** Molecular tests detect the virus' genetic material (nucleic acids). Public health labs in Canada and around the world use molecular tests to diagnose COVID-19. PCR tests are a type of molecular test. This test is the gold standard for diagnosing active COVID-19 infection in patients with symptoms.
 - **Antigen test:** Antigen-based tests detect specific proteins on the surface of the virus. They're often called rapid tests, as they typically provide results in less than an hour. In general, antigen tests are used at point of care by a health care professional or trained operator. However, lab-based antigen tests also exist.

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