

Training Module: Collecting Specimens for COVID-19 Antigen Rapid Test

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Overview

By the end of this module, you will understand:

- The types of swabs found in the rapid antigen test kits
- The acceptable specimen collection methods
- How to collect specimens



Swab types and uses

Swab Types

- COVID-19 antigen rapid tests come with either nasopharyngeal (NP) swabs or nasal swabs.
- The proprietary swabs that come in the kits should be used.



L: NP Swab
R: Nasal Swab

NP Swab: Specimen Collection Methods

- A nasopharyngeal swab can be used with the following collection techniques:
 - Nasopharyngeal* (highest sensitivity),
 - Combined throat** + both nares,
 - Deep nasal / midturbinate, or
 - Nasal / both nares.

*A nasopharyngeal (NP) swab is a controlled act and can only be conducted by certain regulated health professionals or by those to whom the act has been delegated. A nasopharyngeal specimen can be collected through a direct order or medical directive.

**Also called oropharyngeal

Nasal Swab: Specimen Collection Methods

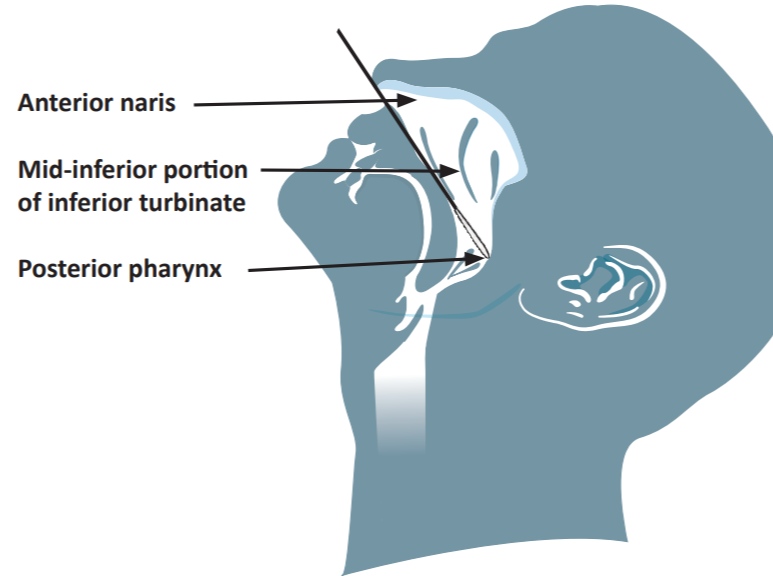
- A nasal swab can be used with the following collection techniques:
 - Combined throat + both nares (highest sensitivity),
 - Deep nasal / midturbinate, or
 - Nasal / both nares.



How to collect specimens

Nasopharyngeal Specimen Collection Instructions

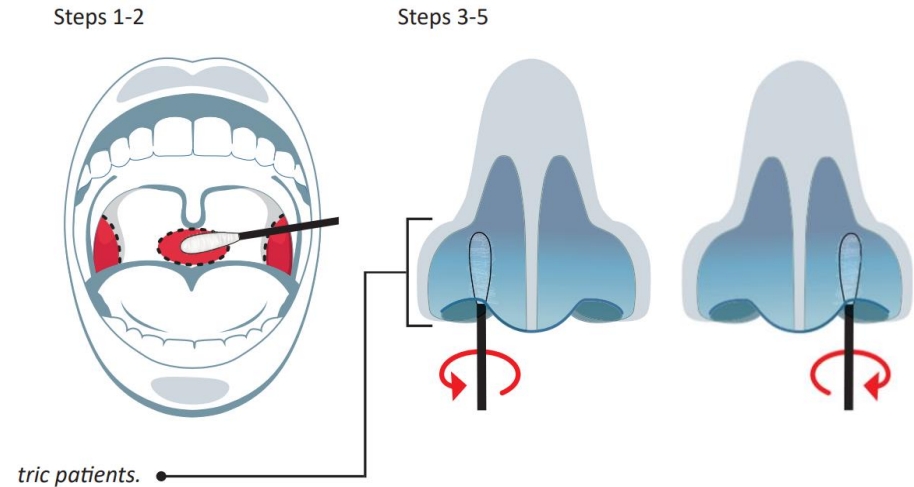
1. In a seated position, tilt patient's head back 70° .
2. Insert flexible shaft mini-tip swab through nares parallel to palate (not upwards) until:
 - a. Resistance is met, OR
 - b. Distance is equivalent to half the distance from the patient's ear to their nostril
3. Gently rub and roll the swab.
4. Leave swab in place for several seconds to absorb secretions.
5. Slowly remove the swab while rotating it and immediately place in pre-labelled tube containing buffer.



In a seated position, tilt the head back at a 70° angle as illustrated in the picture

Oropharyngeal/Throat *combined* with Anterior Nares/Nostril Specimen Collection Instructions

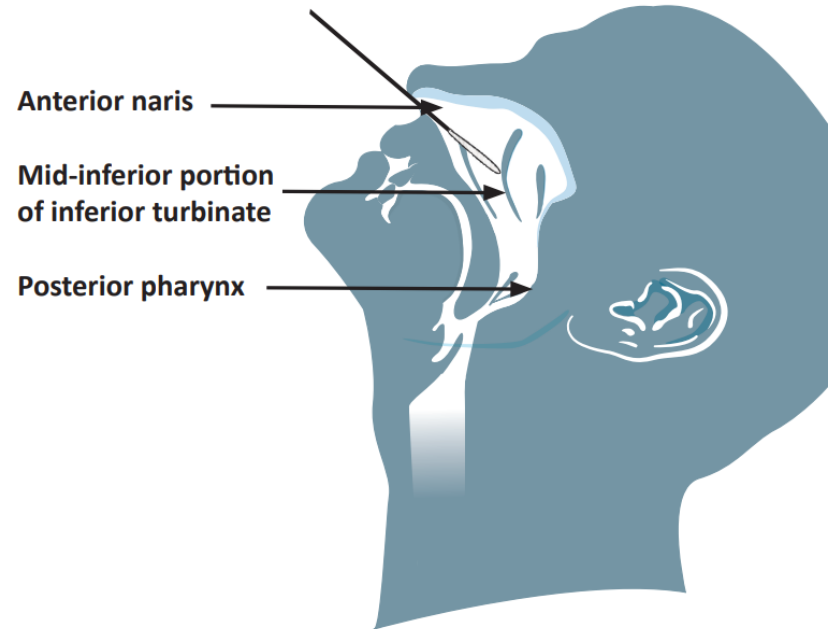
1. Insert swab in posterior pharynx and tonsillar areas.
2. Rub swab over posterior pharynx and bilateral tonsillar pillars; avoid tongue, teeth, and gums.
3. Using the same swab, insert about 1 cm (0.5 in) inside nares.*
4. Rotate swab several times against the nasal wall.
5. Leave swab in place for several seconds to absorb secretions.
6. Using the same swab, repeat for the other nostril.
7. Immediately place in pre-labelled tube containing buffer.



Deep Nasal Specimen Collection Instructions

1. In a seated position, tilt patient's head back 70° .
2. While gently rotating swab, insert swab about 2.5 cm (~1 in.)* straight back (not up) into nostril – stop when you meet resistance (at turbinates).
3. Rotate swab several times against the nasal wall.
4. Leave swab in place for several seconds to absorb secretions.
5. Repeat for both nostrils using the same swab.
6. Immediately place in pre-labelled tube containing buffer.

**Pediatrics: swab insertion distance will differ for pediatric patients.*

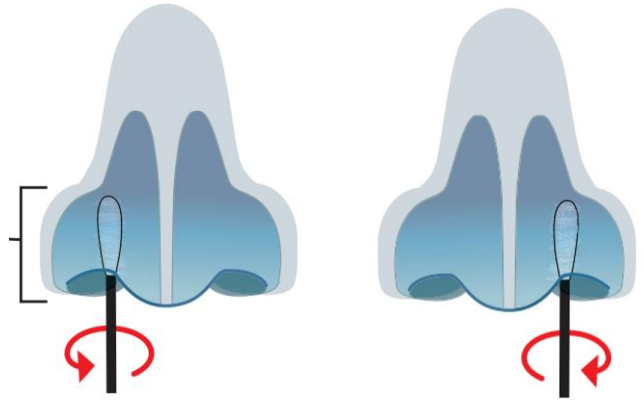


In a seated position, tilt the head back at a 70° angle as illustrated in the picture

Nasal/Nostril/Nose Specimen Collection Instructions

1. Insert swab about 1 cm (0.5 in) inside nares.*
2. Rotate swab several times against the nasal wall.
3. Leave swab in place for several seconds to absorb secretions.
4. Using same swab, repeat for other nostril.
5. Immediately place in pre-labelled tube containing buffer.

** Pediatrics: swab insertion distance will differ for pediatric patients.*



Biosafety Considerations

- Before proceeding, assess for any potential risk associated with the collection process.
- Wear gloves, gowns, masks, and face shields when handling patient specimens and used devices.
- Dispose of specimens, kits, and other contaminated materials carefully in an appropriate biohazard container.
- Maintain a safe work area.



Resources

How-to Videos on Specimen Collection

- Nasopharyngeal: <https://www.nejm.org/doi/full/10.1056/nejmvcm2010260>
- Combined throat and both nares: <https://www.publichealthontario.ca/en/laboratory-services/kit-test-ordering-instructions/virus-respiratory-throat-nasal>
- Deep nasal: <https://www.youtube.com/watch?v=DSrWjVyxEeg>

Additional Resources

- Public Health Ontario fact sheet: Abbott Panbio™ COVID-19 Antigen Rapid Test: Biosafety Considerations: <https://www.publichealthontario.ca/-/media/documents/lab/covid-19-abbott-panbio-antigen-rapid-test-biosafety.pdf?la=en>
- Nasopharyngeal specimen collection: <https://www.publichealthontario.ca/en/laboratory-services/kit-test-ordering-instructions/virus-respiratory-kit>
- Deep nasal specimen collection: <https://www.publichealthontario.ca/en/laboratory-services/kit-test-ordering-instructions/virus-respiratory-kit-deep-nasal>
- Throat + both nares specimen collection: <https://www.publichealthontario.ca/en/laboratory-services/kit-test-ordering-instructions/virus-respiratory-throat-nasal>
- Nasal, nostrils, nose specimen collection: <https://www.publichealthontario.ca/en/laboratory-services/kit-test-ordering-instructions/virus-respiratory-kit-nasal-nostril-nose>
- Self-collection for COVID-19 antigen testing: <https://youtu.be/HrgzR0pydJk>

Supporting Tools and Training Resources

- Pre-recorded Training Modules
- COVID-19 Antigen Rapid Testing Onboarding Guide, which contains:
 - Surveillance Program Frequently Asked Questions
 - Specimen Collection Tip Sheet
 - Rapid Test Information Sheet for Individuals undergoing screening
 - Primer on Best Practices
 - Recommended Approach for Implementing a COVID-19 Rapid Antigen Screening Clinic
 - Go-Live Readiness Checklist
- COVID-19 Rapid Test Results Tracker available on Ontario Health [website](#)

Acknowledgement

- Thank you to [Public Health Ontario](#) for permission to use illustrations and content on specimen collections.

Questions

- Contact: covid19testing@ontariohealth.ca

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