

COVID-19 Specimen Collection Guidance

Important Notes:

1. Train staff on how to properly collect specimens, including what type of swab/equipment to use and where to collect the sample.
2. Prior to collecting a specimen, perform hand hygiene and don the appropriate PPE (surgical mask or N95 respirator, eye protection, gown, and gloves).
3. Label each viral transport media tube with the patient's name, date of birth, and the date and time of specimen collection. Ensure that the information on the tube's label matches the information on the associated laboratory requisition form.
4. Ensure that the specimens are transported to the lab on ice packs. If they cannot get to the lab immediately, they can be stored at 2-8°C, but must be tested within 72 hours of collection. If a delay in testing or shipping is expected, store specimens at -70°C or below.



Anterior nares swab (left) vs. nasopharyngeal swab (right). Photo courtesy of the Illinois Department of Public Health

How to Collect a Nasopharyngeal (NP) Specimen

1. Remove the cap from the tube containing 2-3 mL of viral transport media. Remove the swab from its packaging and handle carefully. Do not touch the sterile end of the swab.
2. Have the patient tilt their head back and support it with your non-dominant hand.
3. Gently insert the synthetic fiber swab with a plastic or wire shaft into the patient's nostril parallel to the palate/nasal floor. Do not veer upwards.
4. Once you feel resistance and the swab has been inserted to the approximate distance from the nostril to the outer opening of the ear, gently rub and roll the swab and leave it in place for a few seconds to absorb secretions.
5. Slowly withdraw the swab while rotating it.
6. Place the swab in the tube, ensuring that the swab tip is in the viral media. If needed, break the applicator stick so that the cap to the tube can be securely closed.



Photo courtesy of the New England Journal of Medicine

Video demonstrating collection of a NP specimen:

<https://www.youtube.com/watch?v=osl9W-0005g>

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How to Collect an Oropharyngeal (OP) Specimen

1. Remove the cap from the tube containing 2-3 mL of viral transport media. Remove the swab from its packaging and handle carefully. Do not touch the sterile end of the swab.
2. Ask the patient to open their mouth, stick out their tongue, and say “ah.”
3. Depress the tongue using a tongue depressor.
4. Gently insert the synthetic fiber swab with a plastic or wire shaft into the oral cavity without touching the lips, teeth, tongue, hard palate, or soft palate.
5. Collect the sample from the back wall of the throat (swab the tonsils and posterior pharynx). Twist the swab shaft gently, but thoroughly.
6. Place the swab in the tube, ensuring that the swab tip is in the viral media. If needed, break the applicator stick so that the cap to the tube can be securely closed.

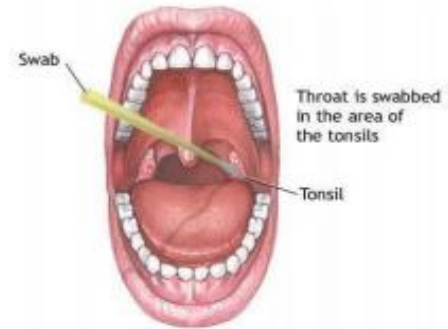


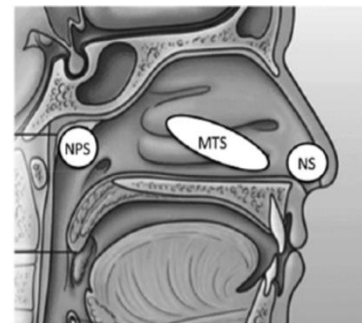
Photo courtesy of the Pennsylvania Department of Health

Video demonstrating collection of an OP specimen (start at 2:53):

<https://www.youtube.com/watch?v=osl9W-0005g>

How to Collect a Nasal Mid-Turbinate (Deep Nasal Swab) Specimen

1. Remove the cap from the tube containing 2-3 mL of viral transport media. Remove the swab from its packaging and handle carefully. Do not touch the sterile end of the swab.
2. Tilt patient’s head back 70 degrees.
3. Using the flocked tapered swab, gently rotate while inserting less than one inch (about 2 cm) into the nostril until resistance is met at turbinates.
4. Rotate the swab several times against the nasal wall.
5. Repeat in the other nostril using the same swab.
6. Place the swab in the tube, ensuring that the swab tip is in the viral media. If needed, break the applicator stick so that the cap to the tube can be securely closed.



Sampling Locations: NPS, Nasopharyngeal swab; MTS, midturbinate swab; NS, nasal swab. (From Frazee et al., 2018)

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How to Collect an Anterior Nares (Nasal Swab) Specimen

1. Remove the cap from the tube containing 2-3 mL of viral transport media. Remove the swab from its packaging and handle carefully. Do not touch the sterile end of the swab.
2. Using the flocked or spun polyester swab, insert the swab at least 0.5 inches (about 1 cm) into the nostril (not upwards).
3. Firmly rotate the swab and leave in place for 10-15 seconds.
4. Repeat in the other nostril using the same swab.
5. Place the swab in the tube, ensuring that the swab tip is in the viral media. If needed, break the applicator stick so that the cap to the tube can be securely closed.



Photo courtesy of the Illinois Department of Public Health

Video demonstrating collection of an anterior nares (nasal) specimen: [Will add video link once available](#)

How to Collect a Nasopharyngeal Wash/Aspirate or Nasal Wash/Aspirate Specimen

1. Attach a catheter to the suction apparatus.
2. Have the patient sit with their head tilted slightly backward.
3. Instill 1 – 1.5 mL of non-bacteriostatic saline (pH 7.0) into one nostril.
4. Insert the tubing into the nostril parallel to the palate (not upwards). The catheter should reach a depth equal to the distance from the nostril to the outer opening of the ear.
5. Begin gentle suction/aspiration and remove the catheter while rotating it gently.
6. Place the specimen in a sterile viral transport media tube.

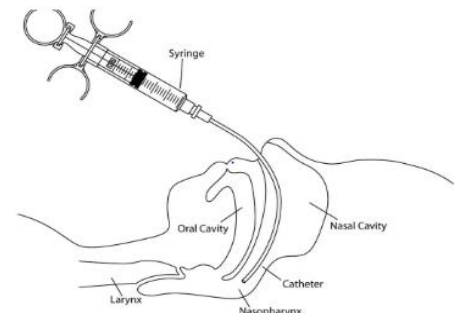


Photo courtesy of St. Jude Children's Research Hospital

References:

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http://www.msdh.state.ms.us/msdhsite/index.cfm/14,8501,420,694,pdf/COVID-19_Specimen_Collection.pdf

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