

# COVID-19 Laboratory Specimen Collection Guide

In the home environment



**COLORADO**  
Department of Public  
Health & Environment

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# Contact client and prepare for visit

1. Inform client of estimated time of arrival
2. Obtain preferred area of entry into the home to ensure client privacy
3. Confirm if pets will be present and request that pets be secured during home visit
4. Provide client with a brief overview of what the client can expect upon your arrival (e.g. client will be called when staff arrives, client should be prepared to step into a separate room and close the door, other household members should exit the entryway and area where specimen collection will occur, staff will be wearing PPE, all efforts will be made to be discreet and maintain client confidentiality)
5. Determine if the client has a outside trash receptacle with the lid removed, that can be utilized to dispose of used PPE.
  - a. If there is not an outside trash receptacle bring a trash bag or bucket to safely discard the waste.



# Gather

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Necessary Supplies & Equipment



# Required PPE

- ❑ 2 pairs of disposable health care examination gloves
- ❑ 1 disposable isolation gown or front closed fluid resistant apron with sleeves
- ❑ Goggles or face shield with side shield (eye glasses are not adequate).
- ❑ Fit-tested N95 or higher level of respiratory protection (e.g. N95, P100, PAPR).
- ❑ Alcohol based hand gel (minimum 60-95% alcohol content)

Instructional video:

<https://www.youtube.com/watch?v=bG6zISnenPg>

# COVID-19 PPE: Donning and Doffing



## Items Required

GOWN – standard isolation  
N95 Respirator  
Eye protection - Face shield or goggles  
Gloves

Hand  
Hygiene



## Donning Order

1. Hand Hygiene
2. Gown
3. Respirator
4. Eye Protection
5. Gloves



## Doffing Order 1

1. Hand Hygiene
2. Gown with  
Gloves
3. Hand Hygiene
4. Eye Protection
5. Hand Hygiene
6. N95
7. Hand Hygiene

## Doffing Order 2

1. Hand Hygiene
2. Gown
3. Gloves
4. Hand Hygiene
5. Eye Protection
6. Hand Hygiene
7. N95
8. Hand Hygiene

## How to Properly Put on and Take off a Disposable Respirator

WASH YOUR HANDS THOROUGHLY BEFORE PUTTING ON AND TAKING OFF THE RESPIRATOR.

If you have used a respirator before that fit you, use the same make, model and size.

Inspect the respirator for damage. If your respirator appears damaged, DO NOT USE IT. Replace it with a new one.

Do not allow facial hair, hair, jewelry, glasses, clothing, or anything else to prevent proper placement or come between your face and the respirator.

Follow the instructions that come with your respirator.<sup>1</sup>

### Putting On The Respirator



Position the respirator in your hands with the nose piece at your fingertips.



Cup the respirator in your hand allowing the headbands to hang below your hand. Hold the respirator under your chin with the nosepiece up.



The top strap (on single or double strap respirators) goes over and rests at the top back of your head. The bottom strap is positioned around the neck and below the ears. Do not crisscross straps.



Place your fingertips from both hands at the top of the metal nose clip (if present). Slide fingertips down both sides of the metal strip to mold the nose area to the shape of your nose.

# Required Testing Materials

- ❑ 1 package containing 2 sterile swabs, must be dacron/nylon swabs (nothing with a wood shaft)
- ❑ 2 viral transport media tubes (1-3 ML of sterile transport medium)
- ❑ 1 tongue depressor (Optional)
- ❑ Marker or 2 labels to place on transport tubes to identify patient, patient date of birth and date collected
- ❑ Tissues for the patient
- ❑ Portable cooler with lid and frozen cold pack, should be able to be cleaned/disinfected
- ❑ A box of procedural or face masks for the client to wear prior to collection (available if necessary)
- ❑ Kitchen size or larger trash bag to dispose of used PPE if outside trash receptacle is not available.
- ❑ Specimen collection biohazard bags (Two per sample to ensure the sample doesn't leak)
- ❑ Health care disinfecting wipes effective against COVID-19 or other coronavirus pathogens

## Checking Your Seal<sup>2</sup>



Place both hands over the respirator, take a quick breath in to check whether the respirator seals tightly to the face.



Place both hands completely over the respirator and exhale. If you feel leakage, there is not a proper seal.



If air leaks around the nose, readjust the nosepiece as described. If air leaks at the mask edges, re-adjust the straps along the sides of your head until a proper seal is achieved.



If you cannot achieve a proper seal due to air leakage, ask for help or try a different size or model.

Additional training resources:

Instructional video: <https://www.youtube.com/watch?v=bG6zISnenPg>



# Testing Location

- Collecting NP and/or OP swabs is likely to induce a cough or sneeze.
- Collecting the specimen outdoors is recommended if climate allows.
- If collected within the home, specimen collection should be performed in the area of the home where the individual being tested self-isolates.
  - Only public health personnel and the individual being tested should be in the room when testing is performed.
  - Non-aerosol-generating procedures (e.g. interviewing) should be performed before aerosol-generating procedures. Aerosol-generating procedures (collecting NP/OP specimens) should be the last activity performed just before leaving the home.

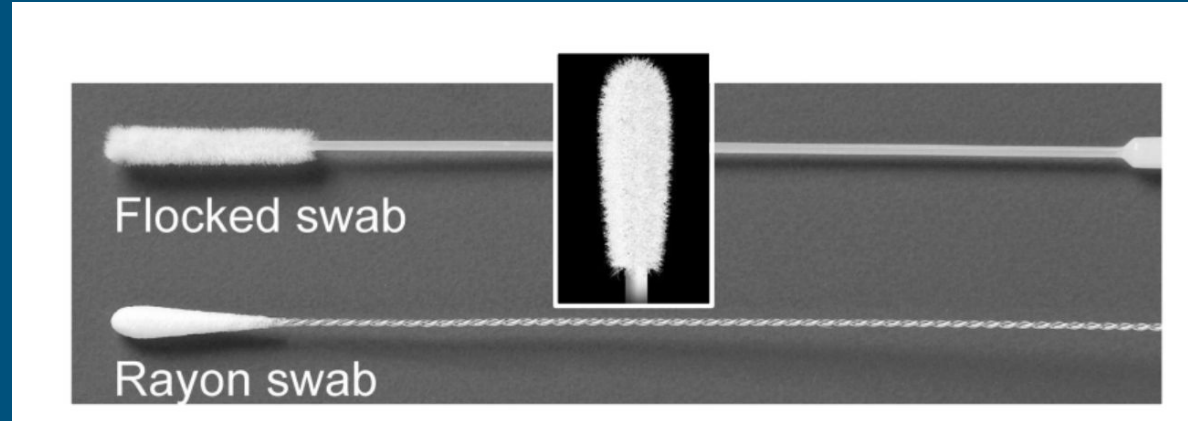
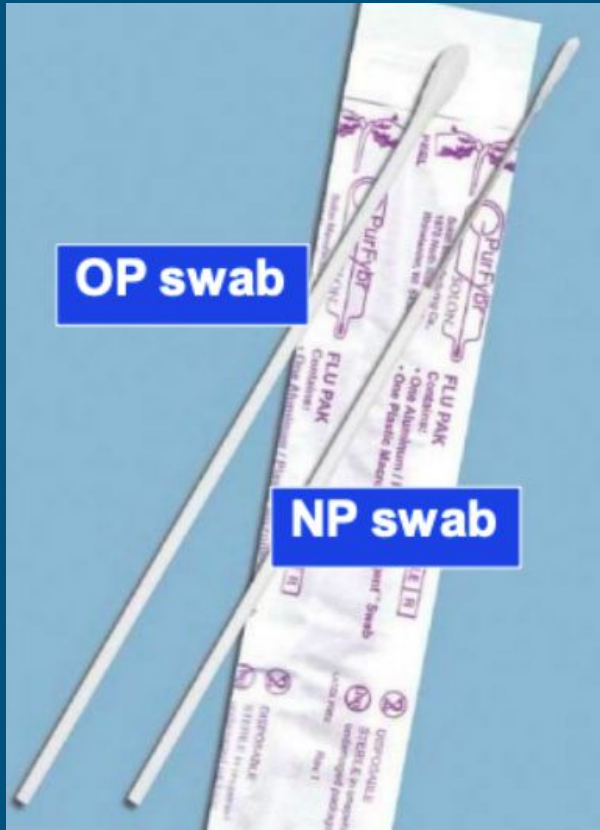
# Collect Nasopharyngeal swab AND oropharyngeal swab (NP/OP swab) whenever possible

Use only synthetic fiber swabs with plastic shafts. Do not use calcium alginate swabs or swabs with wooden shafts, as they may contain substances that inactivate some viruses and inhibit PCR testing.

Place swabs immediately into sterile tubes containing 2-3 ml of viral transport media.

NP and OP specimens should be kept in separate vials.

# Examples of appropriate swabs



# Specimen collection at private residence.

1. Phone client to notify of arrival at residence. Label the containers of viral media transport with client information including: name/date of birth, date collected and specimen type prior to entering residence.
2. Locate the trash receptacle outside of the home for PPE disposal, (do not wear contaminated PPE inside of personal vehicle) be sure to remove the lid if necessary.
3. Place the portable cooler containing a cold pack outside of the clients home with the lid removed, in preparation for dropping the specimen into the cooler after collection. Place several disinfecting wipes inside of the cooler to prepare to clean the outside of the specimen bags when completed.
4. Perform Hand Hygiene with alcohol based hand rub prior to donning PPE
5. Don required PPE (gown, gloves, respirator, eye protection) prior to entering the clients residence (consider utilizing garage, backyard or other secluded area outside the home to provide privacy).

# Specimen collection at private residence.

6. Ask client to proceed to the previously agreed upon location within the home or outside of the home (climate permitting) to collect the specimens. If collecting within the home, specimens should be collected in the room that the client is self-isolating and other household members should not be present.
7. Ask client to verify personal information on specimen container prior to collection.
8. Perform specimen collection and exit the clients home if collected inside. Once outside of the residence, obtain the previously placed disinfecting wipes and clean the outside of the specimen bags. Place the disinfected specimen bag within the cooler while avoiding handling the cooler with contaminated ppe and/or hands.
9. Perform hand hygiene using alcohol hand gel on your gloved hands.
10. Remove PPE, placing all items into the outside trash receptacle and cover with lid if available. If lid is not available consider placing used ppe within a sealed trash bag.
11. Perform hand hygiene.
12. Place cooler into the car and secure lid, perform additional hand hygiene.

## COVID-19 PPE: Donning



### Items Required

Gown - Standard isolation  
N95 Respirator  
Eye protection - Face shield or goggles  
Gloves

### Donning Order

1. Hand Hygiene
2. Gown
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4. Eye Protection
5. Gloves

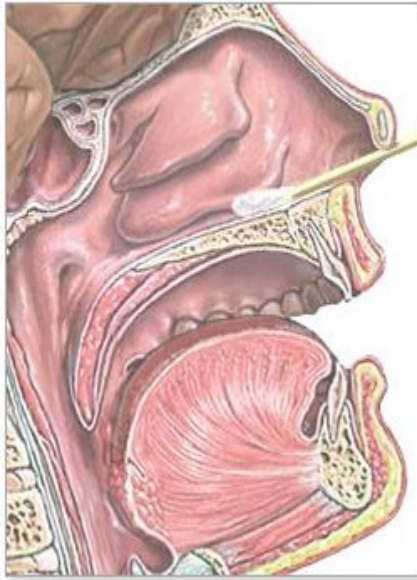
Hand  
Hygiene



# Nasopharyngeal Specimen Collection

## Steps to Collect Specimen

### Nasopharyngeal culture

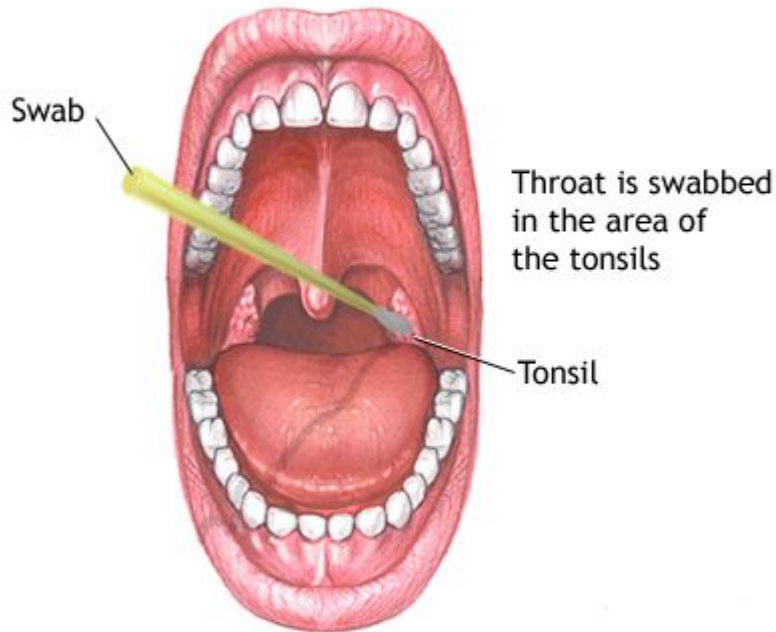


A sterile swab is passed gently through the nostril and into the nasopharynx

1. Ask the pt to blow their nose to clear nasal passage of excessive mucus. Have the person dispose of the used tissue in a waste receptacle.
2. Tilt the patient's head back 70 degrees. It may be helpful to have the pt. rest their head against a wall or hard surface during specimen collection.
3. Insert swab into the nostril. (Swab should reach depth equal to the distance from nostril to outer opening of the ear. ). Leave in place for 5-10 seconds to absorb secretions.
4. Slowly remove swab while rotating it.
5. Place the tip of swab into sterile viral transport media tube and snap/cut off the applicator stick. Ensure lid is tightly closed.
6. Place specimen container in a biohazard transport bag.

# Oropharyngeal Specimen Collection

## Throat swabs



1. Take a second dry polyester swab, use the tongue depressor to keep the tongue from interfering with specimen collection, insert swab into mouth, and swab the posterior pharynx and tonsillar areas. (Avoid the tongue and teeth.)
2. After collection place the tip of swab into sterile viral transport media tube and snap/cut off the applicator stick, close the cap tightly.
3. Place the closed specimen container inside of the biohazard specimen transport bag.



## COVID-19 PPE: Doffing

### Doffing Order 1

1. Hand Hygiene
2. Gown with Gloves
3. Hand Hygiene
4. Eye Protection
5. Hand Hygiene
6. N95
7. Hand Hygiene

### Doffing Order 2

1. Hand Hygiene
2. Gown
3. Gloves
4. Hand Hygiene
5. Eye Protection
6. Hand Hygiene
7. N95
8. Hand Hygiene

Hand  
Hygiene



Hand  
Hygiene



Hand  
Hygiene



Hand  
Hygiene

## Removing Your Respirator



DO NOT TOUCH the front of the respirator! It may be contaminated!



Remove by pulling the bottom strap over back of head, followed by the top strap, without touching the respirator.



Discard in waste container.  
WASH YOUR HANDS!

Employers must comply with the OSHA Respiratory Protection Standard, 29 CFR 1910.134 if respirators are used by employees performing work-related duties.

1 Manufacturer instructions for many NIOSH approved disposable respirators can be found at [www.cdc.gov/niosh/nppil/topics/respirators/disp\\_part/](http://www.cdc.gov/niosh/nppil/topics/respirators/disp_part/)

2 According to the manufacturer's recommendations

For more information call 1-800-CDC-INFO or go to <http://www.cdc.gov/niosh/nppil/topics/respirators/>



# Complete the process

- Dispose of all used PPE in clients outdoor trash receptacle.
- Ensure that your name (e.g. the person collecting the specimen) is on public health's list for contact monitoring by calling your local public health agency.
- Collected lab specimens should be delivered to the State Laboratory Monday-Friday 8am -5pm
- Visit <https://www.colorado.gov/pacific/cdphe/courier-information> or call 303-815-7220 to access state courier service.
- Specimen test requests must be completed through the LabOnline test request portal:  
<https://sites.google.com/state.co.us/lcd-horizon-lims/labonline>

# Additional tools/resources

- PPE competency validation checklist

<https://docs.google.com/viewer?url=https%3A%2F%2Frepository.netecweb.org%2Ffiles%2Foriginal%2F2e4703b98e6f5391205eb36c9bd0e6ab.docx&embedded=true>

- PPE competency checklist for validator

<https://docs.google.com/viewer?url=https%3A%2F%2Frepository.netecweb.org%2Ffiles%2Foriginal%2F19ae5f473200e9ecf6cb5c0bc6087477.pdf&embedded=true>

- PPE training video

<https://www.youtube.com/watch?v=bG6zISnenPg>

- Specimen Collection Video

<https://www.youtube.com/watch?v=DVJNWefmHjE>