COVID-19 Specimen Collection

Preferred Specimen: Nasopharyngeal Swab (NP)

Materials:
- Synthetic fiber swab with plastic shaft (flocked is preferred)
- Viral transport media tube *(should contain 1-3 ML of sterile viral transport medium)*

Collection Procedure
- Tilt the patient’s head back 70 degrees.
- Insert swab into a nostril parallel to the palate and leave the swab in place for a few seconds to absorb secretions.
- Repeat on the second nostril using the same swab
- Place tip of the swab into sterile vial of viral transport media and snap/cut off the swab applicator stick at the preformation.
- Tightly seal the vial
- Label the tube with the patient’s name, specimen source, and date/time of collection.
- Store the specimen at 2-8°C until shipment.

Alternate Specimens for Situations When the Collection of a Nasopharyngeal Swab is not Possible

Nasopharyngeal specimen is the preferred choice for swab-based SARS-CoV-2 testing. When collection of a nasopharyngeal swab is not possible, the following are acceptable alternatives when using a sterile swab with a plastic shaft:

- A single oropharyngeal (OP) swab collected by a healthcare professional, or
- A single nasal mid-turbinate (NMT) swab* collected by a healthcare professional or by onsite self-collection (using a flocked tapered swab), or
- A single anterior nares (NS) swab * specimen collected by a healthcare professional or by onsite self-collection (using a round foam swab). Both nares (left and right) MUST be sampled.

*At this time, anterior nares and mid-turbinate specimen collection are only appropriate for symptomatic patients and both nares should be swabbed. There is currently not enough information to recommend nasal or mid-turbinate testing for asymptomatic persons.

If both NP and OP swabs both are collected, they should be combined in a single tube to maximize test sensitivity and limit testing resources.

Specimen collection should be conducted with a sterile swab. If the applicator handle requires additional trimming, the trimming should be performed with a sterile pair of scissors to prevent contamination of the sample.

Do not use calcium alginate swabs or swabs with wooden shafts, as they may contain substances that inactivate some viruses and inhibit PCR testing.
Swab Transport Media
All swabs (NP, OP, NMT, NS) MUST be placed in a transport tube containing either viral transport medium, Amies transport medium, or sterile saline. Viral Transport Medium (VTM) or a Universal Transport Medium appropriate for viruses is the recommended swab transport media.

Below is a list of individually wrapped swabs. All swabs are flocked unless noted:

- Copan Nasopharyngeal swabs: 503CS01, 518CS01, and 501CS01, 502CS01
- BD Nasopharyngeal swabs: 220252 and 220251
- DHI/Quidel Nasopharyngeal swabs: 503CS01.DHI
- Copan Oropharyngeal swabs: 502CS01, 519CS01, 164KS01**, 167KS01**, 170KS01** and 175KS01**
- BD Oropharyngeal swabs: 220250
- Fisher Healthcare Oropharyngeal swabs: 23600950, 23600957, 1490641**, 1490640** and 1490650**

† Foam swab
** Polyester swab

Below is a list of swab/transport media systems. All of the products listed below include a nasopharyngeal (NP) flocked swab unless noted otherwise.

- Copan: 305C, 307C, 360C and 519CS01*
- Hardy/Healthlink: 330CHL
- BD: 220526, 220527, 220528*, 220529, 220531 DHI/Quidel: 330C.
- DHI and 503CS01.DHI
- Fisher Healthcare: 23001718, 23600952, 23600956, 23600950 and 23600957*
- PrimeStore MTM: LH-1-02 and LH-1-03***

* flocked oropharyngeal swab
** Polyester swab
*** no swab

In the absence of VTM/UTM, alternative transport media can be used to collect and transport patient samples for molecular RT-PCR SARS-CoV-2 assays. These recommendations apply to
swab-based specimen collection by healthcare providers and to anterior nares (nasal) and mid-turbinate specimen collection onsite by self-collection.

Labs can create their own viral transport media. Refer to CDC's SOP#: DSR-052-01: Preparation of Viral Transport Media. Specimens can be stored for up to 72 hours at 4°C, or frozen for longer storage.

Liquid Amies media may be used for viral transport when universal transport media is not available. Specimens can be stored in liquid Amies media for up to 72 hours at 4°C, or frozen for longer storage. All of the products listed below include a nasopharyngeal (NP) flocked swab unless noted otherwise.

- Copan: 481C, 482C 480C* and 480CFA*
- Puritan: LA-117, LA-116-H and LA-100***
- BD: 220246, 220532 and 220245*
- ThermoFisher: R723481, R723482 and R723480*
- Hardy/Healthlink: 481C, 482C 480C* and 480CFA*
- VWR: 89136-656, 89136-658, 89136-654* and 76181-494*
- Fisher Healthcare: 23600901, 23600902, 23600900* and 23600905*

* flocked oropharyngeal swab
*** no swab

If the above are not available, a dry swab may be placed in screw-top plastic vial containing 2-3mLs of sterile phosphate buffered saline. Specimens can be stored up to 72 hours at 4°C, or frozen for longer storage. All the products listed below do not include a swab.

- ThermoFisher: R064430, R064432, R064434, R064436 and R064438
- Hardy/Healthlink: D185, K248, R45 and R55
- Edge Biologicals: T-0625 and T-0110f