



**COVID-19 Testing for City of Berkeley residents at the Alameda County Public Health Department:
 Test request, prioritization, and specimen collection and shipping procedures – 03/09/2020**

On March 4, 2020 the Centers for Disease Control and Prevention (CDC) expanded criteria for COVID-19 testing (<https://www.cdc.gov/coronavirus/2019-nCoV/hcp/clinical-criteria.html>).

Providers assessing City of Berkeley residents should order COVID-19 testing through commercial laboratories and other non-other non-public health laboratories offering COVID-19 testing. Although clinicians may order testing on any patient for whom they believe it is clinically indicated, City of Berkeley Communicable Disease Prevention & Control Program (COB-CDPCP) will focus public health testing on the following highest priority groups:

Clinical Features	&	Epidemiologic Risk
Fever ¹ or signs/symptoms of lower respiratory illness (e.g. cough or shortness of breath)	AND	Any person, including health care workers ² , who has had close contact ³ with a laboratoryconfirmed ⁴ COVID-19 patient within 14 days of symptom onset
Fever ¹ and signs/symptoms of a lower respiratory illness (e.g., cough or shortness of breath) requiring hospitalization	AND	A history of travel from geographic areas with a CDC travel warning of at least Level 3 ⁵ within 14 days of symptom onset

For patients with suspected COVID-19:

- 1. Immediately institute COVID infection control precautions.** Place a surgical mask on the patient and place the patient in an airborne infection isolation room if possible. If not, place them in a private room with the door closed and signage indicating airborne, contact, and standard precautions with eye protection should be used. Do not allow the patient to wait in a waiting room.
- 2. Conduct the patient history and clinical examination and collect specimens if COVID-19 is clinically suspected.** Collect nasopharyngeal (NP) and oropharyngeal (OP) swabs, the preferred specimens, using all COVID-19 infection control precautions. Only collect sputum if the patient can spontaneously cough up a deep sputum sample, and do not perform sputum induction. If the patient is intubated, you may collect a tracheal aspirate. Lower respiratory tract specimens cannot be tested at The Alameda County Public Health Laboratory (ACPHL) so the testing turnaround time for these specimens will be longer. **Do not collect serum.**
- 3. Label the specimens completely.** Incomplete or incorrect labeling will delay testing and may result in cancellation of testing. Write on the specimen vial:
 - Patient name
 - Date of collection
 - Specimen type – specify if “NP” or “OP”. Do not write “NP/OP” or “swab”.
 - CDC ID number, once it is provided by COB-CDPCP. Ask your laboratory to refrigerate specimens at 2-8°C in your facility for up to 48 hours while awaiting testing approval from COB-CDPCP.



4. **Complete ACPHL specimen submittal forms, one for each specimen.** Incomplete specimen submittal forms will delay result reporting. Required fields:
 - Patient name, date of birth, sex
 - Patient address
 - CDC COVID ID number, once it is provided to you by COB-CDPCP
 - Ordering clinician name and telephone number
 - Submitting laboratory name, address, phone number and fax number
 - Specimen collection date and time
 - Specimen source: specify if NP swab or if OP swab
 - Test name, COVID 19 PCR
5. **Advise patient to self-isolate until results return.** Provide the CDC guidance: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-prevent-spread.html>. For patients who are not in COB-CDPCP priority categories for testing, self-isolation may be prolonged. We do not have an estimated turnaround time for lower priority testing categories.
6. **Complete the CDC's COVID-19 Person Under Investigation form.** Download from <https://www.cdc.gov/coronavirus/2019-ncov/downloads/pui-form.pdf>. Send to COB-CDPCP for review and prioritization. Fax to 510-981-5345 OR securely email to COBCD@cityofberkeley.info. If emailing, put in the subject line, Request for COVID-19 testing.
7. **If COB-CDPCP approves testing within 48 hours of specimen collection, finish specimen submittal.** COB-CDPCP will send testing approval with a CDC COVID-19 ID number. The COVID-19 ID number is unique to each patient. Do not reuse prior COVID-19 ID numbers. Laboratory personnel must write in the CDC COVID-19 ID number on the specimen labels and the specimen submittal forms and ship the specimens to ACPHL following the packaging and shipping guidance at the bottom of this guidance.
8. **If COB-CDPCP does not approve testing within 48 hours of specimen collection, you may send specimens and specimen submittal forms to ACPHL.** Specimens sent to ACPHL that do not have a COVID-19 ID number will be frozen and will be tested at a future date as laboratory capacity allows. The turnaround time will depend on the volume of high-priority test specimens received.
9. **Test turnaround time at ACPHL** is currently one to two business days from the time specimens are received. This may change depending on testing volume. Results will be sent to your healthcare facility.
10. **Please limit phone calls to COB-CDPCP to reporting only individuals who clearly meet COB-CDPCP's highest priority groups for testing.** This will allow us to focus on testing the highest risk individuals and tracing and quarantining of contacts to confirmed and high suspect cases.



¹Fever may be subjective or confirmed

²For healthcare personnel, testing may be considered if there has been exposure to a person with suspected COVID-19 without laboratory confirmation

³Close contact is defined as:

- a) being within approximately 6 feet (2 meters) of a COVID-19 case for a prolonged period of time; close contact can occur while caring for, living with, visiting, or sharing a healthcare waiting area or room with a COVID-19 case – or –
- b) having direct contact with infectious secretions of a COVID-19 case (e.g., being coughed on) If such contact occurs while not wearing recommended personal protective equipment or PPE (e.g., gowns, gloves, NIOSH-certified disposable N95 respirator, eye protection), criteria for PUI consideration are met. See CDC's updated [Interim Infection Prevention and Control Recommendations for Patients with Confirmed COVID-19 or Persons Under Investigation for COVID-19 in Healthcare Settings](#).

Data to inform the definition of close contact are limited. Considerations when assessing close contact include the duration of exposure (e.g., longer exposure time likely increases exposure risk) and the clinical symptoms of the person with COVID-19 (e.g., coughing likely increases exposure risk as does exposure to a severely ill patient). Special consideration should be given to healthcare personnel exposed in healthcare settings as described in CDC's [Interim U.S. Guidance for Risk Assessment and Public Health Management of Healthcare Personnel with Potential Exposure in a Healthcare Setting to Patients with COVID-19](#).

⁴Documentation of laboratory-confirmation of COVID-19 may not be possible for travelers or persons caring for patients in other countries.

⁵Affected areas are defined as geographic areas where sustained community transmission has been identified. Relevant affected areas will be defined as a country with sustained or widespread community-level transmission ([CDC Level 2 or 3 Travel Health Notice](#)).

⁶Category includes single or clusters of patients with severe acute lower respiratory illness (e.g., pneumonia, ARDS) of unknown etiology in which COVID-19 is being considered.

Specimen Collection, Packaging, and Shipping

Maintain proper infection control when collecting specimens: use standard, contact and airborne precautions along with eye protection (goggles/face shields).

Both OP and NP specimens should be submitted. Lower respiratory tract specimens may be submitted but only if clinically indicated and must be sent to the CDC for testing. Do not send serum or other specimen types.

Respiratory Specimens

A. Upper respiratory tract

- Nasopharyngeal swab AND oropharyngeal swab (NP/OP swab): 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 or universal transport media.
- **NP and OP specimens should be placed in separate vials clearly marked with patient name, date of collection, specimen type and CDC COVID ID number (once COB-CDPCP approves testing and provides the number). Failure to label specimens completely will result in testing delays or cancellation. Refrigerate at 2-8°C while awaiting testing approval from ACPHD. If testing has not been approved within 48 hours of specimen collection, ship specimens to ACPHL.**



- Nasopharyngeal swab: Insert a swab into the nostril parallel to the palate. Leave the swab in place for a few seconds to absorb secretions. Swab both nasopharyngeal areas with the same swab.
- Oropharyngeal swab (e.g., throat swab): Swab the posterior pharynx, avoiding the tongue.
- Nasopharyngeal wash/aspirate or nasal aspirate: Collect 2-3 mL into a sterile, leak-proof, screw-cap sputum collection cup or sterile dry container. Refrigerate specimen at 2-8°C.

B. Lower respiratory tract, only if clinically indicated and sample available (eg, productive cough, intubation)

- Bronchoalveolar lavage, tracheal aspirate (only if bronchoscopy is clinically indicated or if patient requires intubation): Collect 2-3 mL into a sterile, leak-proof, screw-cap sputum collection cup or sterile dry container. Refrigerate specimen at 2-8°C. • Sputum: Sputum induction is not recommended. Have the patient rinse the mouth with water and expectorate deep cough sputum directly into a sterile, leak-proof, screw-cap sputum collection cup or sterile dry container. Refrigerate specimen at 2-8°C.

Specimen submittal forms

An ACPHL specimen submittal form must be completed for each specimen and accompany the specimens to the ACPHL. Incomplete specimen submittal forms will result in delayed result reporting. Required fields:

- Patient name, date of birth, sex
- Patient address
- Patient medical record number
- CDC COVID ID number
- Ordering clinician name and telephone number
- Submitting laboratory name, address, phone number and fax number
- Specimen collection date and time
- Specimen source: specify if NP swab or if OP swab
- Mark test name, COVID 19 PCR

Packaging and Shipping to ACPHL

- Specimen containers should be securely sealed and closed, parafilm wrapped around the caps, and placed in a zip lock (ACPHL) specimen bag with an absorbent pad inside, large enough to soak up volume of container contents. The bag must be completely zipped shut and placed in a secondary container that should be metal or plastic if possible.
- **If possible**, package according to Category B, UN 3373 shipping standards. Place in appropriate box, or a bag if no box is available. Place a cold pack inside the box if possible. Address the box/bag to: Alameda County Public Health Laboratory, 2901 Peralta Oaks Court, 2nd floor, Oakland, CA 94605. Store box/package at refrigerator temp (2-8°C) until courier arrives and throughout transit to ACPHL. Unfortunately, due to high volumes of testing requests, ACPHL is no longer able to provide expedited courier services for transporting COVID-19 specimens to ACPHL. ACPHL can accept specimens Monday through Friday, 8:30 am to 5 pm.