Interim Guidance: Measuring Temperatures when Screening for COVID-19 Symptoms

Updated May 26, 2020

The following guidance was developed by the San Francisco Department of Public Health for use by local facilities, and will be posted at http://www.sfcdcp.org. This interim guidance may change as knowledge, community transmission, and availability of PPE and testing change.

Note: Updated from prior version to improve readability; corrected to reference CalOSHA (p.2).

AUDIENCE: "Businesses" required to measure temperatures when screening personnel arriving for work or others entering the building. This guidance should be used **with** the guidance on Asking COVID-19 Screening Questions, found at www.sfcdcp.org/symptom-screen. "Business" includes many types of organizations, such as healthcare facilities, nonprofit organizations, employers, community-based organizations and others. "Personnel" includes employees, contract workers, gig-workers, volunteers and others.

This guidance is not meant for screening patients or long-term care residents as part of medical intake or triage process. Long-term care facilities should refer to the "COVID-19 Preparedness and Management Toolkit for Skilled Nursing Facilities" at https://www.sfcdcp.org/covid19hcp.

Groups for Whom Temperature Measurement is Recommended

COVID-19 screening can include either screening questions alone, or screening questions and measuring temperatures. Information about how to Ask Screening Questions can be found here: www.sfcdcp.org/symptom-screen . In San Francisco, certain businesses and organizations are only required to ask personnel about symptoms of COVID-19 before they start work each day as part of a Health Officer order or directive, and **do not** measure temperatures. For an up to date list of Health Officer orders and directives, and what businesses are required to do, please see: https://www.sfdph.org/dph/alerts/coronavirus-healthorders.asp. Other businesses and organizations are encouraged to ask personnel about symptoms of COVID-19 before they start work each day, even if not mandated to do so and **do not** measure temperatures.

In addition, CDC recommends **both** asking COVID-19 screening questions **and** measuring the temperatures of certain groups when they arrive at **specific** workplaces or facilities, including, among others, workers or others entering health care facilities, nursing homes, and jails, clients arriving at homeless shelters, and children in child care programs.

Measuring temperatures of personnel entering a facility should not replace more effective measures such as staying 6 feet apart, placing physical barriers like glass or plastic windows when people cannot work 6 feet from other, and having everyone in the building wear facemasks or cloth face coverings.

CDC recommends asking about COVID-19 symptoms and measuring the temperatures of the following groups as they enter the building:

- Personnel reporting to work at health care facilities, including skilled nursing and long-term care

- Personnel, visitors and incarcerated/detained persons at correctional and detention facilities

- Critical Infrastructure workers who are permitted to continue working after close contact[i] with

someone with suspected or confirmed COVID-19, including:

- Federal, state, & local law enforcement
- 911 call center employees
- Fusion Center employees
- Hazardous material responders from government and the private sector
- Janitorial staff and other custodial staff
- Workers – including contracted vendors – in food and agriculture, critical manufacturing, informational technology, transportation, energy and government facilities

- Clients arriving at homeless shelters

- Children arriving at child care programs, including pre-K (pre-kindergarten) programs. CDC guidelines state that child care programs may allow the parent to take the child's temperature with a thermometer before or upon arrival, then report the temperature to the childcare. Child care programs can include, among others:

  - Family child care programs, also known as home-based child care
  - Pre-K (Pre-kindergarten) programs at private and public schools
  - Head Start and Early Head Start programs
  - Private child care centers

Should other businesses measure temperatures of personnel or others arriving at their buildings?

At this time, SFDPH does not recommend that all businesses routinely measure temperatures of personnel to screen for possible COVID-19. The CDC acknowledges that "fever and symptom screening have proven to be relatively ineffective in identifying all infected individuals." This is because people with COVID-19 can infect others before they become ill, and some people with COVID-19 never become ill, but can still infect others.

The benefits of asking about symptoms and taking temperatures are greatest in the following situations:

- When multiple critical infrastructure workers have been exposed to COVID-19, and requiring all exposed workers to quarantine at home for 14 days would cause significant personnel shortages.

- Closed environments where COVID-19 may spread rapidly if introduced to the facility, such as nursing home, jails and detention facilities

- Situations where more effective measures such as staying 6 feet apart and having everyone wear facemasks/face coverings are not feasible, such as child care programs.

- Places that serve people at high risk of severe COVID-19 illness, such as hospitals, clinics and nursing homes.

Should businesses keep personnel temperatures and symptoms on file?

Businesses can decide whether they want to keep COVID-19 screening questions. If so, Cal/OSHA requires businesses to keep these documents for 30 years after the employee leaves the organization. See Cal/OSHA's Access to Employee Exposure and Medical Records standard (8 CCR 3204).

Setting up Temperature Stations

- Decide **who** will have their temperature measured: personnel only, clients only, or everyone entering the building; and **who** will be asking about symptoms and measuring temperatures.
    - If not adequately staffed, the time needed to screen personnel can create a bottleneck at the entrance, delaying the start of work and causing long lines.

- Determine **where** to ask about symptoms and measure temperatures.
    - Ideally, symptom screening and temperature measurement should occur just before the person enters the building, or just inside the building entrance.
    - SFDPH recommends against measuring temperatures at building entrances for patients or clients if it poses a barrier to seeking needed medical and social services. Also, measuring temperatures too close to the entryway or too soon after someone has entered a building may falsely lower or elevate temperatures depending on the temperature outside.
    - Measurements outdoors in areas exposed to the wind may be inaccurately low when using non-touch (infrared) and temporal thermometers.
    - The entrance should have enough space around it for personnel to stay 6 feet apart while awaiting screening and temperature measurements at the start of a work shift.
    - Buildings may need to close some entrances to keep people from entering without being screened and having their temperature checked.

- Set up a physical **barrier**, such as a glass window or clear plastic barrier on a table, for the person taking the temperature to stand behind
    - Stations should be set up at least 6 feet apart from each other, and in a way that preserves the confidentiality of the person being screened.
    - If a barrier cannot be put in place, the person measuring temperatures should wear the following personal protective equipment (PPE): facemask, eye protection, and disposable gloves. However, PPE alone is less effective than a barrier. In addition, staff must be trained on how to use PPE.

- When choosing the **type of thermometer** to use:
    - For all types of thermometers, higher quality thermometers will likely yield more accurate measurements. Follow manufacturers' guidelines.
    - SFDPH recommends non-touch (infrared) thermometers, with the following caveats:
        - Non-touch thermometers tend to underestimate temperatures compared to oral thermometers, especially when used outdoors.
    - If oral thermometers are used, eating or drinking liquids and solids within 30 minutes can cause inaccurate readings.

Procedures for Measuring Temperatures

- All adults and adolescents waiting to have their temperature checked should already be wearing a facemask or cloth face covering.

- Screen for COVID-19 symptoms first. Personnel and children entering childcare who are asked to go home because of symptoms do not need to have their temperature checked.

What temperature is considered a fever?

For screening individuals before entering a workplace, shelter, or childcare, SFDPH defines fever as a temperature greater than or equal to 100.0°F (37.8°C)

- CDC currently uses two different thresholds, 100°F (37.8°C) and 100.4°F (38°C) for health care settings and non-health care settings, respectively. For simplicity and because infrared thermometers tend to read slightly lower than oral thermometers, SFDPH recommends a single screening threshold of 100°F/37.8°C for everyone except residents of nursing homes/long-term care facilities.

Directions for measuring temperature when a physical barrier is available (preferred)

- When measuring temperatures, stand behind a clear physical barrier, such as a glass window or plastic partition, to protect your face from respiratory droplets that may be produced when the client sneezes, coughs, or talks

- When you arrive at the temperature station, wash your hands, then put on disposable gloves.
    - Wash hands with soap and water for 20 seconds. If soap and water are not available, use a hand sanitizer with at least 60% alcohol. If hands are visibly soiled, soap and water should be used before using alcohol-based hand sanitizer.

- To measure the temperature, reaching around the partition or through the window. Make sure your face stays behind the barrier at all times.
    - If the temperature is below 96°F (35.6°C), recheck it.
    - When using a non-touch (infra-red) or temporal thermometer, if you did not touch the person being screened, you do not need to change gloves before the next check.
    - If using a temporal thermometer, clean it with an alcohol wipe (or isopropyl alcohol on a cotton swab) between each client. You can reuse the same wipe as long as it remains wet.
    - If using an oral thermometer, use a clean pair of gloves for each individual and thoroughly clean the thermometer between each check.

- At the end of the shift or when leaving the temperature screening location, remove and discard gloves and wash hands as described above.

Directions for measuring temperature when there is no physical barrier (PPE only):

- Upon arrival, wash your hands and put on a facemask, eye protection (goggles or disposable face shield that fully covers the front and sides of the face), and a single pair of disposable gloves.
    - Follow current CDC recommendations for facemasks and eye protection at

      https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/face-masks.html

      https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/eye-protection.html

    - Follow your facility's guidance on to safely how to put on and remove PPE. If no guidance exists, the CDC recommended sequences for donning and doffing PPE is at https://www.cdc.gov/niosh/npptl/pdfs/PPE-Sequence-508.pdf
    - Eyeglasses are not considered adequate eye protection because they do not cover the sides of the face.
    - Wash hands with soap and water for 20 seconds. If soap and water are not available, use a hand

sanitizer with at least 60% alcohol. If hands are visibly soiled, soap and water should be used before using alcohol-based hand sanitizer.

- Check the temperature.
    - If the temperature is below 96°F (35.6°C), recheck it.
    - When using a non-touch (infra-red) or temporal thermometer, if you did not touch the person being screened, you do not need to change gloves before the next check.
    - If using a temporal thermometer, clean it with an alcohol wipe (or isopropyl alcohol on a cotton swab) between each client. You can reuse the same wipe as long as it remains wet.
    - If using an oral thermometer, use a clean pair of gloves for each individual and thoroughly clean the thermometer between each check.
- At the end of the shift, or when leaving the screening location (i.e. for a lunch break), remove and discard PPE, and wash hands as described above.

Conditions that may affect temperature readings

- Ambient temperature, sunlight and wind can cause inaccurate readings with a forehead (temporal) or infrared thermometer when used outdoors
- Eating or drinking liquids and solids within 30 minutes can cause inaccurate readings with oral thermometer
- Exercise within 30 minutes can cause elevated temperatures with all devices
- Medications such as aspirin, acetaminophen (Tylenol), ibuprofen (Motrin), and naproxen (Aleve) can suppress fever.
- Elderly patients and immunocompromised persons may not develop significant fever.
- Patients living in cold conditions may have low body temperatures despite infection. The temperature device will reflect the actual body temperature, but the body temperature may not be elevated in response to infection.

If The Individual Has a Fever

Personnel with a fever or symptoms should leave work immediately, inform their supervisor, and call their primary care provider or medical home. Children in child care programs should not be allowed to attend while symptomatic. For other groups, refer to the organization's protocol.

Essential businesses and other businesses allowed to operate under Health Directives should refer personnel to "Required Handout for Personnel of Essential Business and Other Businesses Permitted to Operate During the Health Emergency," for further instructions. This document is available online at www.sfcdcp.org/screening-handout.

Personnel and children excluded from work should be encouraged to seek COVID-19 testing, ideally from their primary are provider (PCP) or medical home. The PCP can assess the person's risk for severe COVID-19 illness and provide appropriate follow-up care. Other testing options are listed at: https://sf.gov/find-out-how-get-tested-coronavirus

SFDPH generally discourages non-healthcare businesses and employers from requiring a note to return to work as long as individuals follow SFDPH COVID-19 Return to Work Guidance: https://www.sfcdcp.org/rtw.

Healthcare facilities may choose to require documentation in collaboration with their occupational safety program.

Resources

Stay informed. Information is changing rapidly. Useful resources can be found at:

San Francisco Department of Public Health (SFDPH)

COVID-19 Guidance for the Public
https://www.sfcdcp.org/covid19

Getting Tested for COVID-19
https://sf.gov/find-out-how-get-tested-coronavirus

Return to Work
https://www.sfcdcp.org/rtw

When a staff member has a positive COVID-19 test

www.sfcdcp.org/covid19-positive-workplace

Centers for Disease Control and Prevention (CDC)

General Business Frequently Asked Questions
https://www.cdc.gov/coronavirus/2019-ncov/community/general-business-faq.html

Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 (COVID-19) in Healthcare Settings
https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html

Implementing Safety Practices for Critical Infrastructure Workers Who May Have Had Exposure to a Person with Suspected or Confirmed COVID-19
https://www.cdc.gov/coronavirus/2019-ncov/community/critical-workers/implementing-safety-practices.html

Interim Guidance on Management of Coronavirus Disease 2019 (COVID-19) in Correctional and Detention Facilities
https://www.cdc.gov/coronavirus/2019-ncov/community/correction-detention/guidance-correctional-detention.html#verbal-screening

Interim guidance on unsheltered homelessness and Coronavirus Disease 2019 (COVID-19) for homeless service providers and local officials
https://www.cdc.gov/coronavirus/2019-ncov/community/homeless-shelters/plan-prepare-respond.html

Guidance for Child Care Programs that Remain Open
https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/guidance-for-childcare.html#ScreenChildren

Meat and Poultry Processing Workers and Employers: Interim Guidance from CDC and the Occupational Safety and Health Administration (OSHA)
https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/meat-poultry-processing-workers-employers.html

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[i] A potential exposure is defined as close contact with an individual with confirmed or suspected COVID-19, up to 48 hours before the individual developed symptoms. Close contact includes:

- living in the same household or being an intimate partner

- spending more than 10 minutes within 6 feet of the person without masks

- Direct contact with another person's bodily fluids and/or secretions (e.g., being coughed or sneezed on, sharing utensils, or providing care/being cared for without wearing a mask, gown, and gloves) .