Centers for Disease Control and Prevention

COVID-19

Guidance for General Laboratory Safety Practices during the COVID-19 Pandemic

Updated Mar. 2, 2022

Summary of Recent Changes

Updates as of January 21, 2022

- Revised to align with CDC recommendations for people who are up to date with their vaccines.

View Previous Updates

Key Points

- This guidance is intended for clinical and public health laboratory and support staff working in a laboratory that handles or processes specimens associated with COVID-19.
- All laboratories should perform a site-specific and activity-specific risk assessment. See Biological Risk Assessment: General Considerations for Laboratories
- Updated recommendations for those up to date with their vaccines clinical and public health laboratory and support staff are included per the guidance: Recommendations for People Up to date with their Vaccines and Updated Healthcare Infection Control After Vaccination.

General Guidance

This guidance is to address the general safety concerns of laboratory personnel during the COVID-19 pandemic. All laboratories should perform site- and activity-specific risk assessments to determine the most appropriate safety measures to implement for particular circumstances. In addition, facilities should adhere to local policies and procedures and all applicable federal, state, and local regulations and public health guidelines.

Risk assessments should include the following considerations:

- **Staff up to date with their vaccines** should wear a well-fitting mask when in areas where COVID-19 Community Level is high. This helps protect staff from SARS-CoV-2 variants and prevents spreading it to others.
  - Staff who are up to date with their vaccines might choose to wear a well-fitting mask regardless of the COVID-19 Community Level.
  - Staff should continue to wear a well-fitting mask where required by laws, rules, regulations, or local guidance.
  - See Recommendations for People Up to Date with their Vaccines and Updated Healthcare Infection Control After Vaccination.
- If **staff are unvaccinated or not up to date with their vaccines**, they should

    - Wear well-fitting face masks:
        - Make sure your mask fits snugly against your face.
        - Pick a well-fitting mask with layers to keep your respiratory droplets in and others out.
    - Physically distance at least 6 feet apart from others.
    - Analyze the number of people the laboratory space can realistically and safely accommodate.
    - Assess the flow of personnel traffic. Where possible, design one-way paths for staff to walk through the laboratory space.
- To ensure clean surfaces and equipment for all users, assess procedures for cleaning and sanitizing commonly shared equipment and areas (for example, counters, benchtops, and desks).
- Review emergency communication and operational plans, including how to protect staff at higher risk for severe illness from COVID-19.

Every institution should have a COVID-19 health and safety plan to protect employees. This plan should be shared with all staff. Ideally, this plan would:

- Describe steps to help prevent the spread of COVID-19 if an employee is sick.
- Instruct sick employees to stay home and not return to work until the criteria to discontinue home isolation are met in consultation with healthcare providers and state and local health departments.
- Provide information on whom employees should contact if they become sick.
- Implement flexible sick leave and supportive policies and practices. If sick leave is not offered to employees, the institution should consider implementing emergency sick leave policies.
- Designate someone to be responsible for responding to employees' COVID-19 concerns. Employees should know who this person is and how to contact this person at all times.
- Provide employees with accurate information about COVID-19, how it spreads, and the risk of exposure.
- Reinforce training on proper handwashing practices and other routine infection control precautions to help prevent the spread of many diseases, including COVID-19.

Ensure that employees have access to personal protective equipment (PPE), disinfectant products that meet the EPA's criteria for use against SARS-CoV-2 , soap, clean running water, and drying materials for handwashing, or alcohol-based hand sanitizers that contain at least 60% ethanol or 70% isopropanol.

Face Masks

Staff who are up to date with their vaccines

Staff who are up to date with their vaccines should wear a well-fitting mask when in areas where the COVID-19 Community Level is high. This helps protect staff from SARS-CoV-2 variants and prevents spreading it to others. Staff who are up to date with their vaccines might choose to wear a well-fitting mask regardless of the COVID-19 Community Level. They may also choose to wear a well-fitting mask if they have someone in their household who is immunocompromised, at increased risk of severe disease, or not up to date with their vaccines. In addition, staff should continue to wear a well-fitting mask where required by laws, rules, regulations, or local guidance.

Staff who are not up to date with their vaccines

CDC recommends staff who are unvaccinated or not up to date with their vaccines to wear a well-fitting mask and physically distance, especially when indoors around people who don't live in your household. This includes office spaces, computer workstations, and break rooms. In general, employees who are not up to date with their vaccines should wear a well-fitting mask in laboratory spaces that do not have requirements for respiratory PPE and where other physical distancing measures are difficult to maintain.

Any face mask worn inside a laboratory area where personnel works with potentially infectious material should subsequently not be worn outside of that laboratory area. Laboratory PPE are critical supplies, and employees should refrain from removing them from the laboratory for general use. Site- and activity-specific risk assessments, as well as available resources,

should determine where specific facial protection, such as disposable masks, should be used and how to dispose of them. These face masks should not be used in place of recommended personal protective equipment (PPE).

- Face masks are not intended to protect those who wear them from any biological or chemical agent handled in the laboratory and are not considered laboratory PPE.
- All staff should follow established PPE requirements for working in laboratory spaces.

Staff should wash their hands before putting on face masks and minimize mask removal while in the laboratory. The guidance below describes how to remove a face mask and replace it with a clean face mask:

- Remove the face mask carefully.
- Be careful not to touch eyes, nose, or mouth when removing the face mask.
- Untie the strings behind the head or stretch the ear loops.
- Handle only by the ear loops or ties.
- Place reusable cloth masks in a bag, and close the bag until it can be washed.
- Wash cloth face masks frequently.
- Wash hands immediately after removing.

Depending on the facility's design or configuration, additional physical barriers, such as a face shield, plexiglass, partition, or plastic barriers, may be needed to achieve physical distancing goals in settings with unvaccinated staff or staff who are not up to date with their vaccines.

Personal Hygiene and Disinfection

As more workers return to the laboratory, extra measures may be needed to ensure a clean and appropriate environment. Reevaluate current protocols for cleaning, use of PPE, and handwashing. High-touch surfaces and equipment present a higher probability of contamination in the work area and should be disinfected frequently. Increasing the number of available cleaning supplies and distributing them throughout the laboratory can encourage staff to clean surfaces and equipment more frequently.

Use visual reminders, such as posters displayed throughout the laboratory environment, common areas, and restrooms to emphasize the importance of hand hygiene and to encourage frequent handwashing. Hands should be washed regularly with soap and water for at least 20 seconds. An alcohol-based hand sanitizer containing at least 60% ethanol or 70% isopropanol can be used when soap and water are unavailable. For more information, see CDC's Hand Hygiene Recommendations.

Previous Updates

Updates from Previous Content

Updates as of August 15th, 2021

- Added mask guidance for staff who are fully vaccinated and in areas of substantial or high transmission
- Added public health laboratories to guidance audience

Updates as of July 15th, 2021

- Updated *face covering* to *face mask*
- Added guidance for staff who are fully vaccinated and staff who are not fully vaccinated
- Added links to the "General Guidance" and "Face Masks" sections
- Deleted the "Physical Distancing" section
- Added links to the "Additional Resources" section

Resources

For additional information, refer to the following:

OSHA information for all employers and workers:

- COVID-19 Safety and Health Topics
- File a Complaint
- Online Whistleblower Complaint Form
- OSHA COVID-19 website

CDC COVID-19 resources:

- Guidance for Wearing Masks
- Your Guide to Masks
- Stay Up to Date with Your Vaccines
- How to Protect Yourself and Others
- Hand Hygiene Recommendations
- Updated Healthcare Infection Control After Vaccination
- Use of Masks to Help Slow the Spread of COVID-19

CDC Laboratory Safety Resources

- Biosafety in Microbiological and Biomedical Laboratories (BMBL) (6th edition) [4.4 MB, 604 Pages]
- Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories

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