# Residential and long-term care facility call

April 10, 2024

All LTCF Facilities

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# Education opportunities

**Respiratory Protection Plan workshop**

Join CDPHE on **Wednesday, April 24, 2024, at noon** for another Respiratory Protection Plan (RPP) workshop. We will walk through how to pull together an RPP from start to finish to help get your facility started with the process.

- Register and add to your calendar

**Project Firstline infection control training**

- EVS training is available on our YouTube channel
- Other education and materials are available on the CO Project Firstline website

# Agenda

- **Presentation**
  Wyatt Deaderick, *Legionella* prevention in assisted living and skilled nursing facilities

- **COVID-19 mitigation and outbreak guidance reminders**
  Brynn Berger, COVID-19 Infection Prevention Program Manager

# *Legionella* prevention in assisted living and skilled nursing facilities

Wyatt Deaderick, MPH
Waterborne Disease Epidemiologist
Division of Disease Control and Public Health Response

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# Agenda

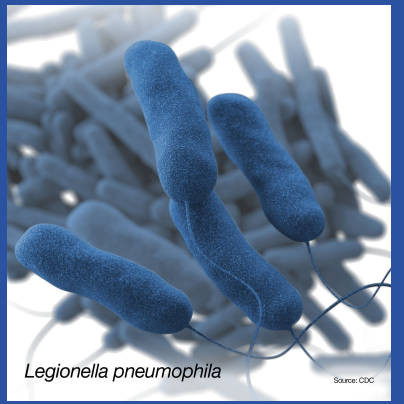
1. *Legionella* background and ecology

2. Legionellosis and Colorado case data

3. Water management plans

# *Legionella*

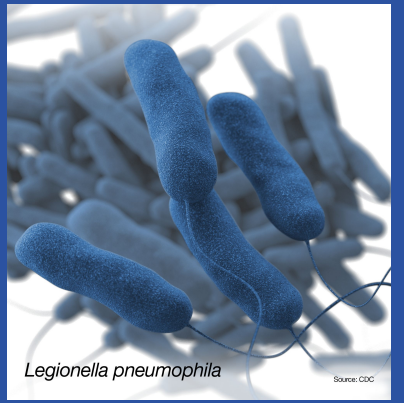
Genus of gram-negative bacteria




- Causes Legionellosis
  - Legionnaires' disease and Pontiac Fever
- Naturally found in many sources of fresh water and soil
  - Becomes problematic when introduced and allowed to grow in human-made water systems
  - Spread through inhalation of contaminated aerosolized water droplets
- ~60 species have been identified
  - ~25 of these have been shown to cause illness to humans

# *Legionella*

- Thermophilic
  - Grows best at temperatures between 77˚F - 113˚F
  - Tolerates a wide temperature range (<68˚F - 150˚F)



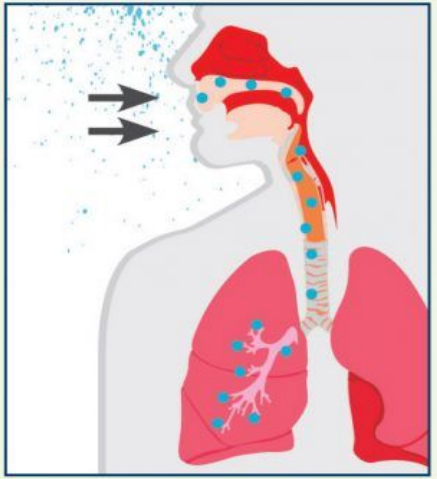
# What is a biofilm?

A community of microorganisms in which cells stick to each other and produce a slimy protective surface


https://www.biofilm.montana.edu/biofilm-basics/what_are_biofilms.html

# Legionnaires' disease

- Severe form of pneumonia
- Symptoms usually appear 2-14 days after exposure
  - Shortness of breath, cough, fever, headache, muscle aches, altered mental status
  - GI symptoms associated
- People most at risk:
  - Older than 50 years, immunocompromised, history of smoking, pre-existing respiratory illness
- ~92% hospitalization rate
- ~10% case fatality rate (25% in HCA cases)
- Not transmitted from person to person

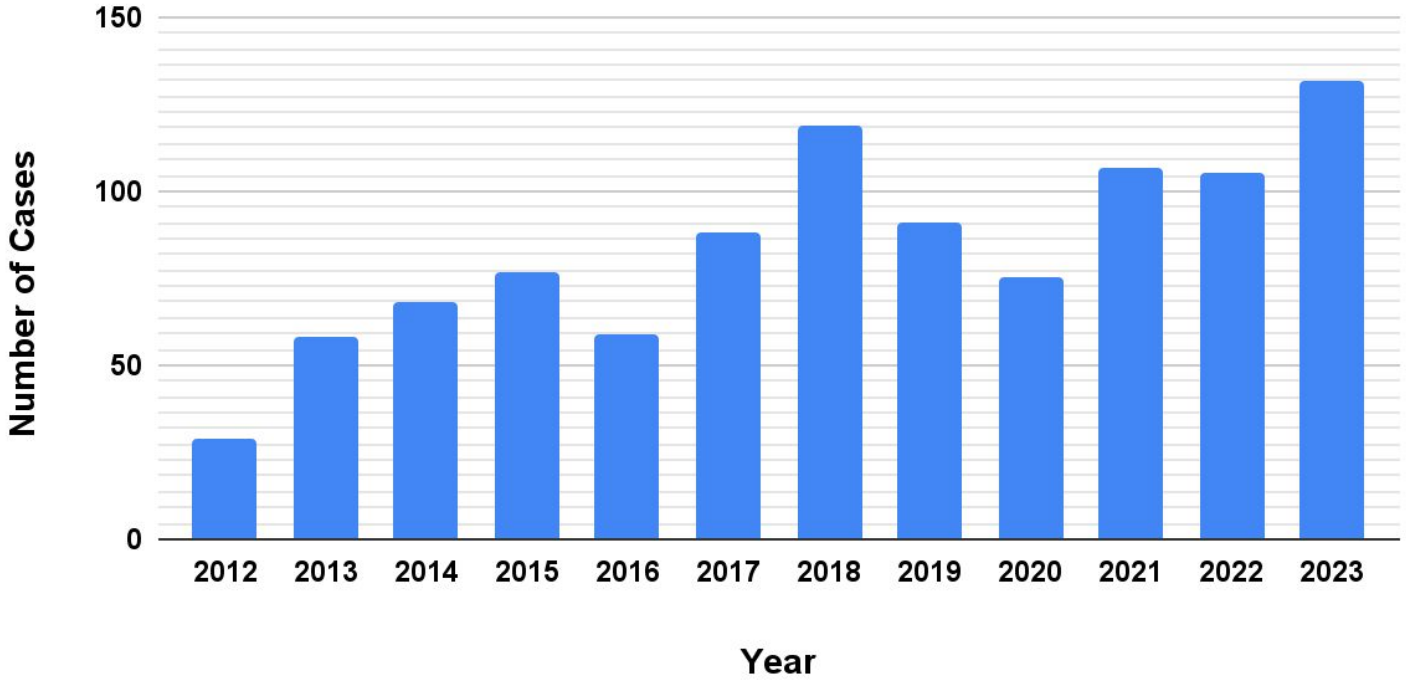


Legionnaires' disease, a type of severe pneumonia, is caused by breathing in small droplets of water that contain *Legionella*.

https://www.cdc.gov/legionella/about/causes-transmission.html

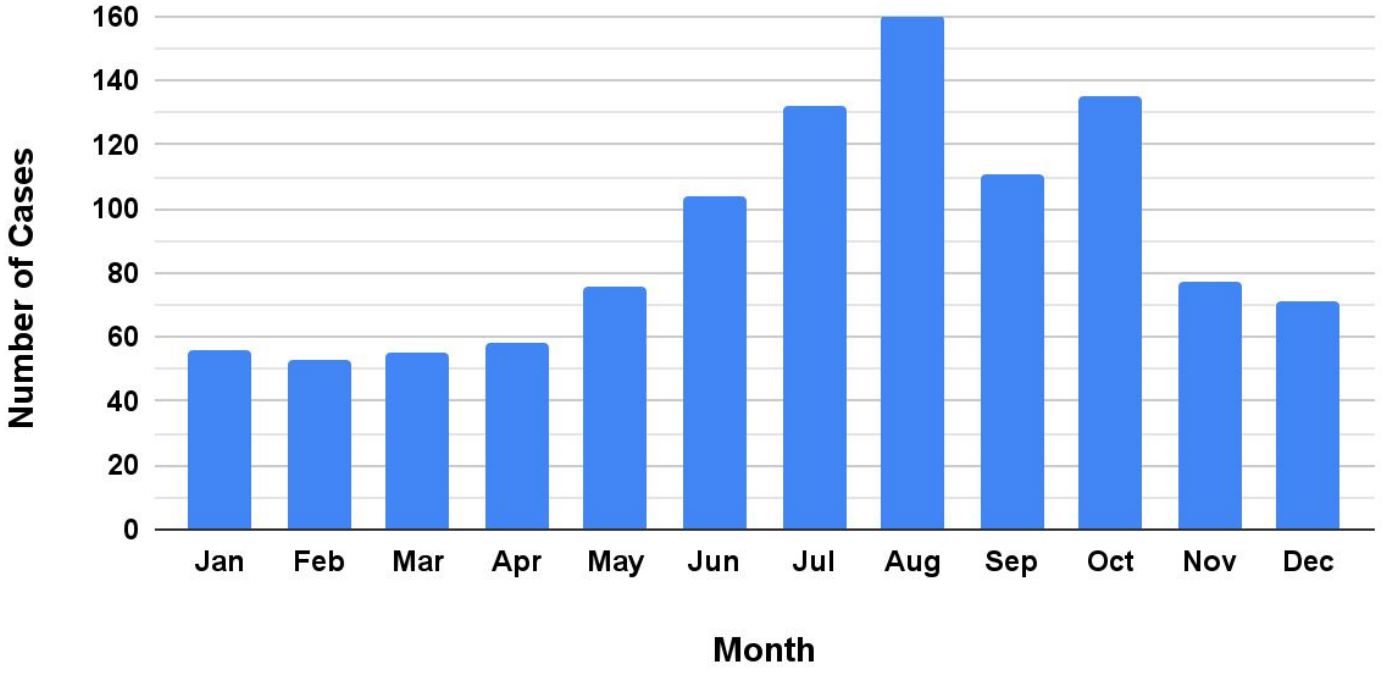
# Colorado Legionellosis Cases by Year

2012 - 2023 (n = 1088)



# Colorado Legionellosis Cases by Report Month

2012 - 2023 YTD (n = 1088)



# Legionellosis trends

## Multiple factors

- Population dynamics
- Aging infrastructure
- Complex water systems
- Climatic factors

# *Legionella* control initiatives

# CMS regulations

- 2017 – CMS released the memo, **"Requirement to Reduce *Legionella* Risk in Healthcare Facility Water Systems to Prevent Cases and Outbreaks of Legionnaires' Disease (LD)"**
  - Conduct **facility risk assessment** to identify where *Legionella* could grow and spread in the facility water system.
  - Implement a **water management plan** that considers ASHRAE industry standard and CDC's toolkit
  - Specify **testing protocols and acceptable ranges** for control measures, and document the results of testing and corrective actions taken.

# CMS regulations

- Applies to any facility that is regulated by and/or receives funding from CMS
- Facilities that have both SNF and ALR components must follow these regulations for the entire facility, if the components share a water system.

# CMS regulations

- Even when not required by CMS, we recommend water management programs.
    - Population factors (primarily housing people >65 years, people with chronic/acute conditions or weakened immune systems stay overnight, etc.)
    - Building factors (multiple units on a centralized hot water system)

CDC Worksheet to Identify Buildings at Increased Risk for *Legionella* Growth and Spread

# Water Management Plans

# WMP components

- Identify **water management team**
- Building specific **risk assessment**
- Define **control measures** and **control limits**
- Specify **corrective actions**
- Describe program **verification** activities
- Develop program **validation** activities


Developing a Water Management Program to Reduce Legionella Growth and Spread in Buildings: A Practical Guide to Implementing Industry Standards 13.2, CDC 2021

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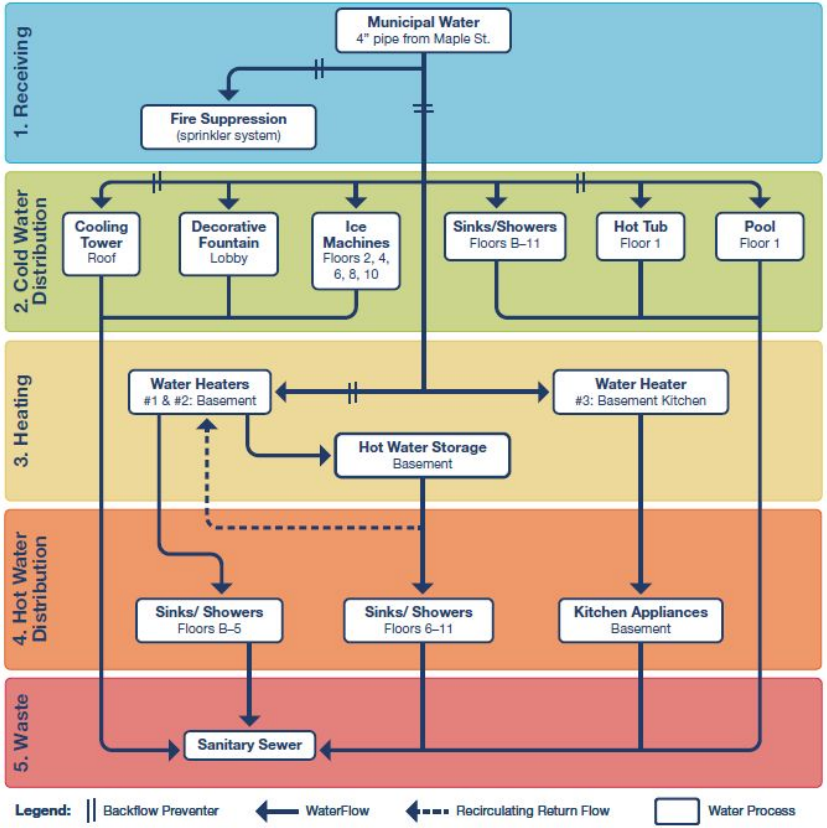
# WMP team

- **Multidisciplinary**
  - Building owner/manager
  - Maintenance or engineering staff
  - Facility management
  - Clinical staff
- Clearly defined roles and responsibilities
- Meet regularly


Developing a Water Management Program to Reduce Legionella Growth and Spread in Buildings: A Practical Guide to Implementing Industry Standards 13.2, CDC 2021

# Water system inventory and risk assessment




Developing a Water Management Program to Reduce Legionella Growth and Spread in Buildings: A Practical Guide to Implementing Industry Standards 13.2, CDC 2021

- Conceptual flow diagram and written description
- Account for all devices/systems that use water, including:
  - Point-of-use outlets (showers/sinks)
  - Hot water heaters
  - Storage tanks
  - Ice machines
  - Irrigation and fire suppression systems
  - Humidifiers
  - Respiratory therapy equipment

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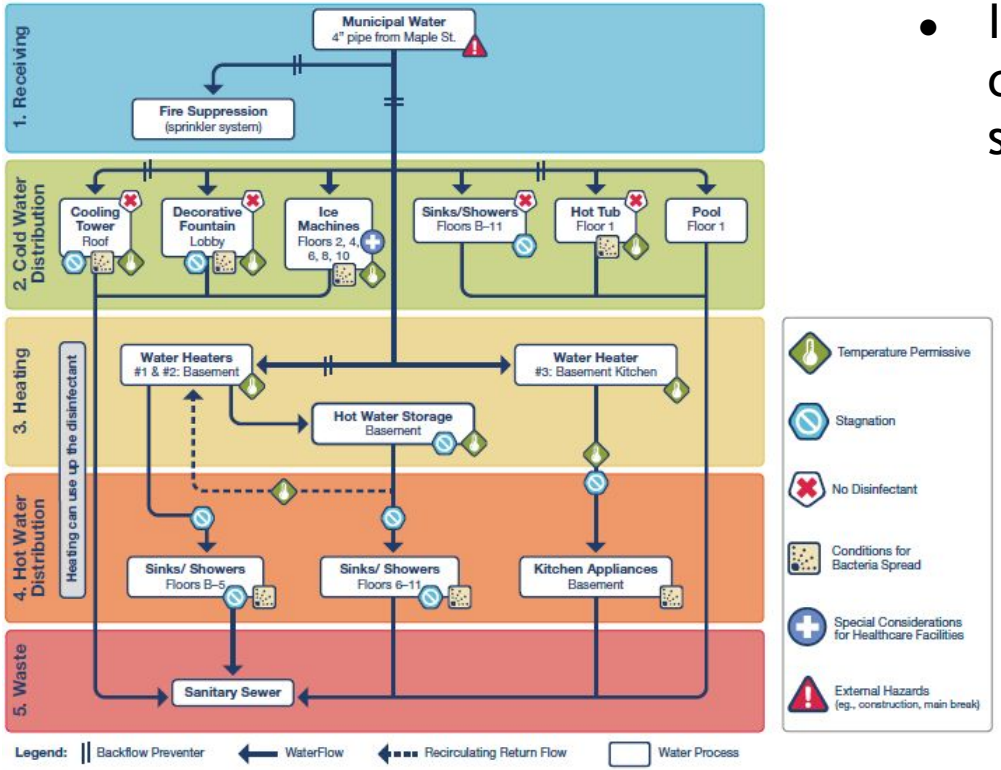
# Water system inventory and risk assessment




- Identify system risk factors that could contribute to *Legionella* growth and spread
  - Permissive temperatures (77˚F - 113˚F)
  - Biofilm
  - Scale/sedimentation
  - Inadequate disinfectant
  - Water stagnation and pressure changes
  - **Aerosolizing devices**

Developing a Water Management Program to Reduce Legionella Growth and Spread in Buildings: A Practical Guide to Implementing Industry Standards 13.2, CDC 2021

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# Establishing control measures and limits

- Risk factors identified in the inventory/risk assessment should have a corresponding **control measure.**
  - What will be monitored?
  - How frequently?
  - By whom?

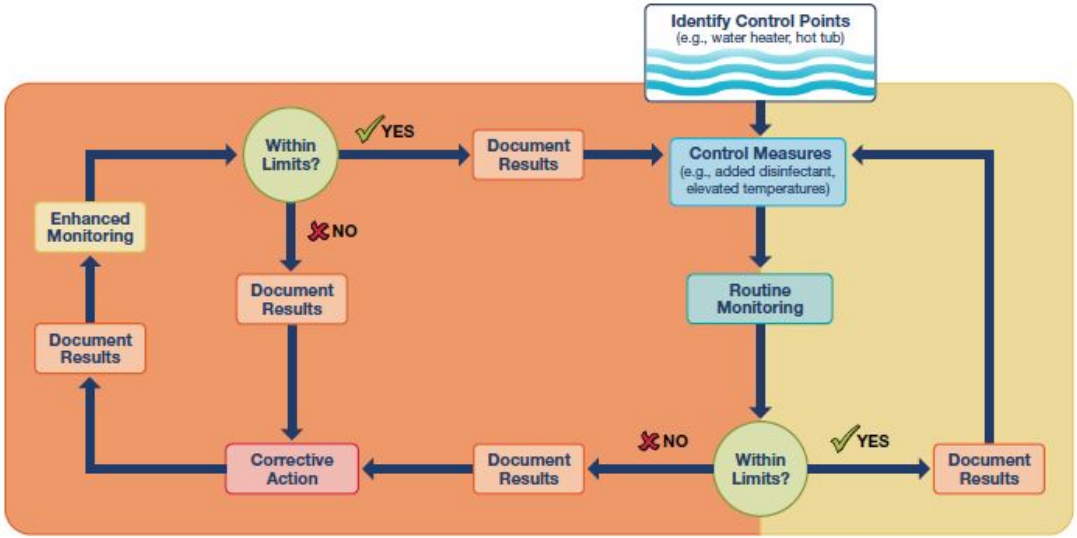
- All control measures should have a corresponding **control limit(s)** specified.
  - What is an acceptable range?
  - When should action be taken?

- **Document!**

# Corrective actions

The water management plan should specify what **corrective actions** will be taken whenever control measures are outside of defined limits.

- What actions will be taken?
- By whom?
- When will control measures be re-evaluated?
- **Document!**




Developing a Water Management Program to Reduce Legionella Growth and Spread in Buildings: A Practical Guide to Implementing Industry Standards 13.2, CDC 2021

# Program verification

- **Verification:** Evaluating whether the program is being implemented as planned
  - WMP team should meet annually to review program activities.
  - Review documentation to look for trends.
    - Control measures consistently out of range
    - Implementation
  - The WMP is a living document and should be updated as needed.

# Program validation

- **Validation:** Evaluating whether the program is working as intended to prevent hazards
  - Clinical surveillance
  - Routine environmental testing (not required in Colorado, but recommended for health care facilities)

# Resources

**CMS regulation**

https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Downloads/Survey-and-Cert-Letter-17-30.pdf

**CDC *Legionella* Toolkit**

https://www.cdc.gov/legionella/downloads/toolkit.pdf

**CDPHE Water Management Plan template**

https://drive.google.com/file/d/1e_19LHpJLOpqN2tIQn2sQoB-RS76bimn/view

**ASHRAE Standard 188**

https://www.ashrae.org/technical-resources/bookstore/ansi-ashrae-standard-188-2018-legionellosis-risk-management-for-building-water-systems

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# Thank you!

Any questions?

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# COVID-19 mitigation and outbreak guidance reminders

Brynn Berger, MPH, CIC
COVID-19 Infection Prevention Program Manager
Division of Disease Control and Public Health Response

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# COVID-19 guidance documents

**Assisted living residences and group homes:**

- CDC recently published updated respiratory virus guidance for community settings.
- Colorado's assisted living residences and group homes should continue to follow CDPHE's COVID-19 mitigation and outbreak guidance.
    - Updated recently to reflect our continued recommendations

**Nursing homes and intermediate care facilities:**

- No changes were made to CDC's COVID-19 guidance for healthcare personnel.
- Colorado's nursing homes and intermediate care facilities should continue to follow CDPHE's COVID-19 mitigation and outbreak guidance for these settings.

Facilities should also continue to follow CDPHE's guidance for influenza outbreaks and RSV outbreaks in long-term care settings.

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# Reporting COVID-19 cases and outbreaks

**All positive COVID-19 test results for staff and residents must be reported to public health, regardless of whether the facility is experiencing an outbreak.**

- Information on how to report COVID-19 test results is on the COVID-19 (SARS-CoV-2) reporting requirements webpage.
- Reporting must occur within **four business days**.

**Facilities must immediately notify public health of known or suspected outbreaks.**

- Complete the online Outbreak Report Form, **or** report to CDPHE by phone at 303-692-2700 (8:30 a.m. - 5 p.m., Mon-Fri) or 303-370-9395 (after hours, holidays, and weekends).
- The facility must collect and document information for each ill resident and staff member, including names, dates of birth, symptoms, testing, and vaccination information.

Positive antigen tests performed without CLIA oversight (unproctored at-home tests) should be investigated and reported to CDPHE on line lists.

# COVID-19 testing

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# Test people who are symptomatic

Test anyone with even mild symptoms of COVID-19, regardless of vaccination status, **as soon as possible.**

| | ALR/GH | SNF/ICF |
|---|---|---|
| **Testing symptomatic people** | Any positive NAAT (e.g., PCR) or antigen test indicates infection.<br>To rule out COVID-19, testing can be either:<br>• One negative NAAT for SARS-CoV-2 **or**<br>• Two negative antigen tests taken 48 hours apart. | |

# Test people who were exposed

- Facilities should have a plan for how SARS-CoV-2 exposures will be investigated and managed and how contact tracing will be performed.

- **Close contact* definition:** Someone who was less than 6 feet away from an infected person (laboratory-confirmed or a clinical diagnosis) for a total of 15 minutes or more over a 24-hour period (for example, three separate 5-minute exposures for a total of 15 minutes).

- The approach to an outbreak investigation could involve **either contact tracing or a broad-based approach**. However, a broad-based (e.g., unit, floor, or other specific area(s) of the facility) approach is preferred if all potential contacts cannot be identified or managed with contact tracing or if contact tracing fails to halt transmission.

*Higher-risk exposures among HCP: CDC Guidance for Managing HCP with SARS-CoV-2 Infection or Exposure to SARS-CoV-2

# Asymptomatic close contacts or higher-risk exposures*

| | ALR/GH | SNF/ICF |
|---|---|---|
| During an outbreak | Test immediately (but not earlier than 24 hours after the exposure). If negative, test again 48 hours after the first negative test and, if negative, again 48 hours after the second negative test. **This will typically be at Day 1 (where day of exposure is Day 0), Day 3, and Day 5.** | |
| When not in an outbreak (e.g., two or fewer positive staff cases) | Test asymptomatic close contacts no earlier than Day 6 (where day of exposure is Day 0).<br>● If you are only going to do a single test, a PCR test will provide a more reliable negative test result.<br>● If you use an antigen test, a positive result is reliable, but a negative test is not always accurate.<br>○ If an antigen test is negative, perform another antigen test after 48 hours or perform a NAAT as soon as possible.<br>○ If the second antigen test is also negative, wait another 48 hours and test a third time. **This will typically be at Day 6 (where day of exposure is Day 0), Day 8, and Day 10.** | See above |

*CDC Guidance for Managing Healthcare Personnel with SARS-CoV-2 Infection or Exposure to SARS-CoV-2

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# Broad-based testing

If contact tracing is **not** feasible or reliable **or** if additional cases are identified, strong consideration should be given to:

- Shifting to the broad-based approach, if not already being performed, **and**
- Implementing empiric transmission-based precautions (quarantine) for residents in affected areas of the facility.

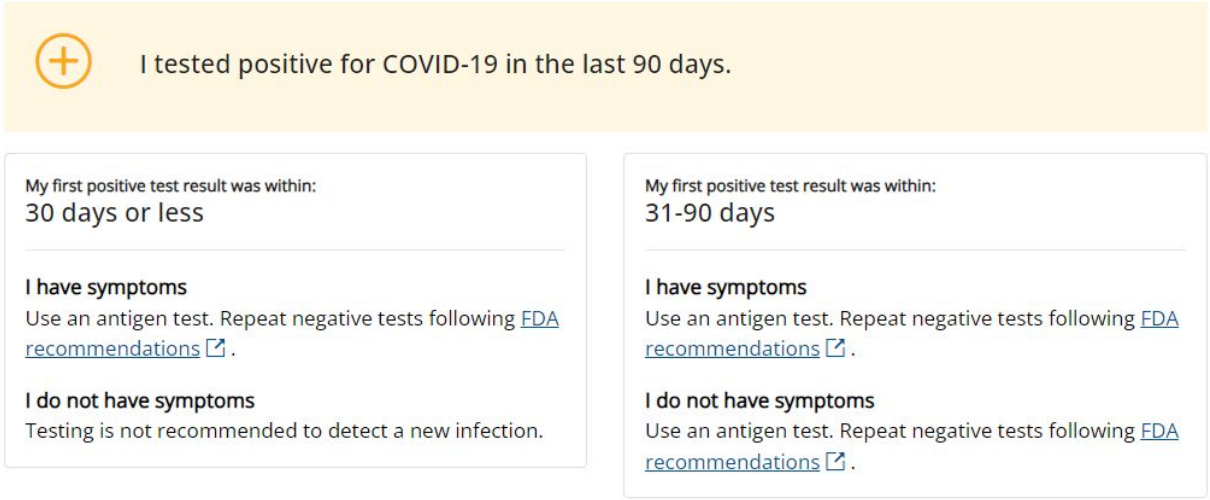
| | ALR/GH | SNF/ICF |
|---|---|---|
| **Broad-based testing during an outbreak** | Testing should continue on affected unit(s) or facility-wide every 3-7 days until there are no new cases for 14 days.<br><br>If antigen testing is used, consider testing more frequently (every three days). | |

# Screening testing (optional)

| | ALR/GH | SNF/ICF |
|---|---|---|
| Screening testing | In general, performance of pre-procedure or pre-admission testing is at the discretion of the facility.<br><br>Performance of expanded screening testing of asymptomatic healthcare personnel without known exposures is at the discretion of the facility. | |

# Testing people who were previously positive

- Due to challenges in interpreting the result, testing is generally **not** recommended for **asymptomatic** people who have recovered from SARS-CoV-2 infection **in the prior 30 days.**
- Consider testing people who have recovered in the prior 31-90 days. However, an antigen test instead of NAAT is recommended. Some people may remain NAAT positive, but not be infectious during this period.




COVID-19 Testing: What You Need to Know

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# Isolation

# Minimum isolation period - ALR/GH

**Assisted living residences and group homes:**

- **Staff and residents** who are ill and/or who test positive for COVID-19 should remain in isolation until **at least five days have passed** since their illness began or from the date of test, if asymptomatic.
- The full length of isolation is based on how serious their COVID-19 symptoms were.
- Loss of taste and smell may persist for weeks or months after recovery and need not delay the end of isolation.

# Minimum isolation period - SNF/ICF

**Nursing homes and intermediate care facilities:**

- **Residents** who are ill and/or who test positive for COVID-19 should remain in isolation until **at least 10 days have passed** since their illness began or from the date of test, if asymptomatic. Complete guidance can be found on CDC's Interim Infection Prevention and Control Recommendations webpage.
- **Staff (healthcare personnel)** return-to-work guidance will be covered on later slides.

# Isolation: No symptoms or mild symptoms

| | ALR/GH residents and staff | SNF/ICF residents |
|---|---|---|
| **No symptoms** (and not moderately to severely immunocompromised) | End isolation **after Day 5.** The day of the person's first positive viral test is Day 0. | End isolation **after Day 10.** The day of the resident's first positive viral test is Day 0. |
| **Mild illness** (and not moderately to severely immunocompromised) | End isolation **after Day 5* if the person is fever-free for 24 hours** (without the use of fever-reducing medication) and **their symptoms are improving.** The day the person first started experiencing symptoms is Day 0. | End isolation **after Day 10* if the resident is fever-free for 24 hours** (without the use of fever-reducing medication) and **their symptoms are improving.** The day the resident first started experiencing symptoms is Day 0. |

*If symptoms are not improving or the person is not fever-free at this point, continue isolation until the person is fever-free for 24 hours (without the use of fever-reducing medication) and their symptoms are improving.

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# Isolation: Moderate illness

| | ALR/GH residents and staff | SNF/ICF residents |
|---|---|---|
| **Moderate illness** (experienced shortness of breath or had difficulty breathing, and not moderately to severely immunocompromised) | End isolation **after Day 10*** if the **person is fever-free for 24 hours** (without the use of fever-reducing medication) **and their symptoms are improving.** The day the person first started experiencing symptoms is Day 0. | End isolation **after Day 10*** if the **resident is fever-free for 24 hours** (without the use of fever-reducing medication) **and their symptoms are improving.** The day the resident first started experiencing symptoms is Day 0. |

*If symptoms are not improving or the person is not fever-free at this point, continue isolation until the person is fever-free for 24 hours (without the use of fever-reducing medication) and their symptoms are improving.

# Isolation: Severe illness or immunocompromised

| | ALR/GH residents and staff | SNF/ICF residents |
|---|---|---|
| **Severe illness*** (e.g., hospitalized) | Isolate through **at least Day 10**. Consult the resident's doctor before ending isolation. Staff should consult their doctor before ending isolation.<br>The day the person first started experiencing symptoms is Day 0. | Isolate through **at least Day 10 and up to Day 20**. A test-based strategy can be used to inform the duration of isolation. Refer to the complete guidance online.<br>The day the resident first started experiencing symptoms is Day 0. |
| **Moderately to severely immunocompromised*** **(regardless of the presence of symptoms)** | Isolate through **at least Day 10**. Consult the resident's doctor before ending isolation. Staff should consult their doctor before ending isolation. | Use of a test-based strategy and (if available) consultation with an infectious disease specialist is recommended to determine when isolation could be discontinued. Refer to the complete guidance online. |

*The person should also be fever-free for 24 hours (without the use of fever-reducing medication) and symptoms should be improving before ending isolation.

# Additional isolation precautions

Regardless of when isolation ends, people with COVID-19 should follow the below precautions **in all settings** (SNF, ICF, AL, and GH) through Day 10:

- Avoid being around people who are more likely to get very ill from COVID-19.
- Wear a high-quality mask when around others in the facility.
- Avoid places where they are unable to wear a mask until they are able to stop masking.

# Considerations for residents during isolation

**In all settings (SNF, ICF, AL, and GH):**

- Place a resident with suspected or confirmed COVID-19 in a single-person room. Keep the door closed (if safe to do so). Ideally, the resident should have a dedicated bathroom.
- If cohorting, only residents with the same respiratory pathogen should be housed in the same room.
    - Also consider multidrug-resistant organism colonization status and presence of other communicable diseases when cohorting.

# Return to work for HCP with COVID-19 (SNF/ICF)

| HCP who are **not** moderately to severely immunocompromised | |
|---|---|
| HCP who were **asymptomatic** throughout their infection could return to work after: | • **At least seven days** have passed **since the date of their first positive viral test** if a negative viral test* is obtained within 48 hours prior to returning to work (**or 10 days** if testing is not performed or if a positive test at Day 5-7). |
| HCP with **mild to moderate illness** could return to work after: | • **At least seven days** have passed **since symptoms first appeared** if a negative viral test* is obtained within 48 hours prior to returning to work (**or 10 days** if testing is not performed or if a positive test at Day 5-7),<br>**and**<br>• At least 24 hours have passed since last fever (without the use of fever-reducing medications),<br>**and**<br>• Symptoms (e.g., cough, shortness of breath) have improved. |

*Either a NAAT (molecular) or antigen test may be used. If using an antigen test, HCP should have a negative test obtained on Day 5 and again 48 hours later.

**ALR/GH:** Visiting or shared HCP who enter the setting to provide healthcare to one or more residents (e.g., physical therapy, wound care, intravenous injections, or catheter care provided by home health agency nurses) should follow this guidance.

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# Return to work for HCP with COVID-19 (SNF/ICF)

| HCP who are **not** moderately to severely immunocompromised | |
|---|---|
| HCP with **severe to critical** illness could return to work after: | • **At least 10 days and up to 20 days** have passed **since symptoms first appeared,**<br>**and**<br>• At least 24 hours have passed since last fever (without the use of fever-reducing medications),<br>**and**<br>• Symptoms (e.g., cough, shortness of breath) have improved.<br><br>The test-based strategy can also be used to inform the duration of work restriction. |

**ALR/GH:** Visiting or shared HCP who enter the setting to provide healthcare to one or more residents (e.g., physical therapy, wound care, intravenous injections, or catheter care provided by home health agency nurses) should follow this guidance.

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# Return to work for HCP with COVID-19 (SNF/ICF)

| HCP who **are** moderately to severely immunocompromised | |
|---|---|
| HCP who are moderately to severely immunocompromised, regardless of the presence of symptoms: | A test-based strategy and consultation with an infectious disease specialist or other expert and an occupational health specialist is recommended to determine when these HCP may return to work. |

**ALR/GH:** Visiting or shared HCP who enter the setting to provide healthcare to one or more residents (e.g., physical therapy, wound care, intravenous injections, or catheter care provided by home health agency nurses) should follow this guidance.

# Thank you!

Additional questions?

Email cdphe_covid_infection_prevention@state.co.us



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