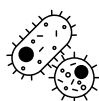


CHIKUNGUNYA VIRUS LABORATORY RESEARCH SAFETY

The following is general information for those involved in the laboratory-based research of chikungunya virus.¹⁻²
Contact occupational.health@cuanschutz.edu if you have any questions.

ABOUT CHIKUNGUNYA VIRUS



Chikungunya is a zoonotic disease caused by the Chikungunya virus (CHIKV), an RNA alphavirus. The primary vectors for transmission of CHIKV are mosquitos; CHIKV is not transmitted directly from human to human. Those involved in the laboratory-based research of chikungunya virus are at elevated risk of exposure.

EXPOSURE TO CHIKUNGUNYA VIRUS

- Accidental exposure to CHIKV may occur through
 - Ingestion
 - Needle stick
 - Contact with broken skin (direct or indirect)
 - Splash exposure
 - Contact with mucous membrane (direct or indirect)
 - Exposure through inhalation is rare

CHIKUNGUNYA VIRUS INFECTION

- Most who are infected with CHIKV become symptomatic
- Symptoms
 - Fever
 - Joint pain
 - Headache
 - Muscle aches
- Symptoms typically appear 3-7 days after exposure (range 1-14 days)
- No treatment available for CHIKV

VACCINATION FOR WORKING WITH CHIKUNGUNYA VIRUS



- Vaccination is recommended for those involved in the laboratory-based research of chikungunya virus
 - VIMKUNYA™ single-dose recombinant vaccine
 - IXCHIQ live attenuated CHIKV vaccine

CHIKUNGUNYA EXPOSURE SAFETY

Follow proper exposure reporting protocols

- If you are injured on the job, promptly report the incident to your supervisor
 - Immediately call or email Occupational Health (303) 724-9145 during business hours
 - Outside of normal hours seek medical attention at emergency department or other healthcare provider
 - Fill out incident report for exposure to biological hazards
 - File a claim with University Risk Management
 - <https://www.cu.edu/risk/file-claim>
- Minor cuts and abrasions should be immediately cleansed with antibacterial soap
 - Protect injuries from exposure

Tell your physician you work with chikungunya

- Whenever you are ill, mention to your physician that you work with chikungunya virus

PPE FOR CHIKUNGUNYA



- Personal protective equipment (PPE) for work with chikungunya virus
 - Laboratory coat; gloves; safety glasses, N95 respirator (requires fit test) or PAPR (requires training)
- Do not reuse PPE used for work with biohazards
 - Dispose of all PPE as biohazardous waste
- Always wash your hands after removing gloves and after handling biohazards

CONTROLS FOR CHIKUNGUNYA

- BSL-3 protections for procedures involving CHIKV
 - Exhausted air not recirculated
 - Negative airflow into laboratory
 - Physical separation from access doors
 - Self-closing, double door access

For more information, refer to the Occupational Health website:
<https://research.cuanschutz.edu/ehs/home/divisions/occupational-health>
or contact Occupational Health at occupational.health@cuanschutz.edu



Updated: 5/15/2025

Sources

1. Centers for Disease Control and Prevention. Chikungunya. May 15, 2024. Accessed December 16, 2024. www.cdc.gov/chikungunya/about/index.html.
2. Boston University Office of Research. Chikungunya virus agent information sheet. Accessed 12/16/2024. www.bu.edu/research/ethics-compliance/safety/rohp/agent-information-sheets/chikungunya-virus-agent-information-sheet.