

## DISINFECTANTS AND WORK-RELATED ASTHMA: INFORMATION FOR WORKERS

**S**ome ingredients found in disinfectants and sanitizers can trigger work-related asthma. They may also cause new asthma. Avoiding ingredients that can cause asthma, like bleach (sodium hypochlorite), quaternary ammonium compounds (benzalkonium chlorides), and glutaraldehyde will help prevent people from getting asthma. Usually, regular cleaning with asthma-safer cleaners and microfiber is enough to keep a workplace clean and healthy. Disinfecting is often unnecessary.

### WHAT IS ASTHMA?

Asthma is a lung disease. People who have asthma sometimes have a hard time breathing. They may have wheezing, chest tightness, and cough. It is important to avoid getting asthma because once you have it, you can have asthma for the rest of your life.

### WHEN IS ASTHMA WORK-RELATED?

Asthma that is caused or made worse by chemicals or other substances at work is called “work-related asthma.” You may get asthma symptoms right after you breathe in a substance, or you may feel symptoms hours after leaving work. Disinfectants can cause work-related asthma, even in people who have never had it before. Disinfectants can also trigger asthma. For example, your asthma can get worse when you use disinfectants or walk into a room that has just been disinfected. Work-related asthma can be serious. The sooner you stop using chemicals that can cause asthma or make it worse, the more likely your breathing problems will get better.



Photo: Custodian reading disinfectant label

### WORK-RELATED ASTHMA IN CALIFORNIA

The Work-Related Asthma Prevention Program (WRAPP) helps workers avoid getting asthma from their job. WRAPP has found over 250 work-related asthma cases related to disinfectant exposures in many indoor work settings—including schools, hospitals, offices, and manufacturing.

#### CASE REPORTS

##### Use of disinfectant sent a fellow employee to the emergency room

A 48-year-old woman with asthma worked as an office clerk at a training center. A coworker sprayed a disinfectant to clean a reception counter near the office clerk's desk. The office clerk right away began having severe asthma symptoms and had to be taken to the hospital by ambulance. To prevent another reaction, the office changed products, but used an even stronger disinfectant. The clerk had to go to the emergency room again. The office finally switched to non-disinfectant cleaning products that are safer for the clerk's asthma.

##### A medical records clerk developed asthma from disinfectant wipes

A 57-year-old woman worked as a medical records clerk and had no history of asthma. A coworker repeatedly used disinfectant wipes on their shared workstation, and the clerk developed asthma that worsened over several months. Her asthma was triggered whenever anyone used a disinfectant in her area. She had to leave her job due to her breathing problems.

## WHAT SHOULD I DO IF I THINK I HAVE WORK-RELATED ASTHMA?

See a doctor if you are wheezing, coughing, have a tight chest, or trouble breathing. If you think something at work is causing your asthma or making it worse, let your supervisor know. Your supervisor may send you to see a doctor who treats work-related health problems. Before you go to the doctor, write down the names of products used at work. If you can, ask your supervisor for the information that comes with chemical products, called a Safety Data Sheet (SDS). The SDS lists what is in the product and how it can affect health. Show these to the doctor and tell the doctor when



Photo: Custodian using a microfiber cloth

### New Requirements for Disinfectant Use in California Schools and Child Care

Under the California Healthy Schools Act, disinfectants, like other pesticides, require special training for use in a public school or child care center. Any school staff member or school volunteer who uses disinfectants, including disinfectant wipes, is required to take a Department of Pesticide Regulation-approved training **annually**. Having disinfectants within the reach of children violates the product label, which is against the law. Surface disinfectants must never be used by children, or to clean skin, including hands. Most of the time regular cleaning is adequate to keep a classroom healthy and safe. If disinfectants are needed, such as for cleaning up blood or vomit, this should be done by a custodian trained to use hazardous products properly.

[Healthy Schools Act training website:](http://apps.cdpr.ca.gov/schoolipm/training/main.cfm)  
<http://apps.cdpr.ca.gov/schoolipm/training/main.cfm>

## HOW CAN ASTHMA FROM DISINFECTANTS BE PREVENTED?

- Your employer must provide training on the safe use of all chemicals, including disinfectants. Read product labels and the SDS for directions on safe use, storage, and disposal.
- Only disinfect areas that need it. Cleaning without disinfecting is often enough for many surfaces, like desktops, walls, and floors. Don't use a disinfectant wipe when a paper towel or cloth would do, like for cleaning up a coffee spill. Asthma-safer cleaners should be used (see Additional Resources below).
- Ask your employer to buy asthma-safer disinfectants with the active ingredients hydrogen peroxide, citric acid, lactic acid, ethyl alcohol, isopropyl alcohol, sodium bisulfate, or products identified by the U.S. Environmental Protection Agency as being safer (see link below in Additional Resources).
- Avoid products that contain bleach (sodium hypochlorite), quaternary ammonium compounds (benzalkonium chlorides), peroxyacetic acid (peracetic acid), and glutaraldehyde.
- Avoid using spray products. Instead, if the label allows, pour the disinfectant (mixed with water if needed) onto a cloth to wipe surfaces. Use microfiber cloths since they work better than regular cloths.
- Work with as much ventilation and fresh air as possible. Open windows and doors if needed.
- Use goggles, gloves, and other equipment to protect yourself. Wear a respirator if the label requires it. CAUTION: dust masks will NOT keep most cleaning chemicals from getting into your lungs.

## ADDITIONAL RESOURCES

[The U.S. EPA's Design for the Environment Antimicrobial Pesticide Pilot Project's products' website](https://www.epa.gov/pesticide-labels/design-environment-antimicrobial-pesticide-pilot-project-moving-toward-green-end) (<https://www.epa.gov/pesticide-labels/design-environment-antimicrobial-pesticide-pilot-project-moving-toward-green-end>) Choose products that do not contain peroxyacetic acid.

[Certification standards to find asthma-safer products](https://archive.cdph.ca.gov/programs/ohsep/Documents/GS-ELStandards.pdf) (<https://archive.cdph.ca.gov/programs/ohsep/Documents/GS-ELStandards.pdf>)

[Cleaning products and work-related asthma fact sheet](https://archive.cdph.ca.gov/programs/ohsep/Documents/WRA-CleaningProd.pdf) (<https://archive.cdph.ca.gov/programs/ohsep/Documents/WRA-CleaningProd.pdf>)

For more information about work-related asthma, call the Work-Related Asthma Prevention Program in California: 1-800-970-6680 (toll-free to California callers) or go to [Work-Related Asthma Prevention Program's website](http://tinyurl.com/CAWorkRelatedAsthma) (<http://tinyurl.com/CAWorkRelatedAsthma>). California Relay Service: 711. To get a copy of this fact sheet in another format, please call (510) 620-5757. Allow at least 10 days.