

# SAFETY MATTERS

safety and loss control resource



**SAFETY AWARENESS FOR EMPLOYEES**

**Chemical Exposure 101, Respirator Protection  
Program, Workplace Violence Prevention,  
Mental Health Awareness**

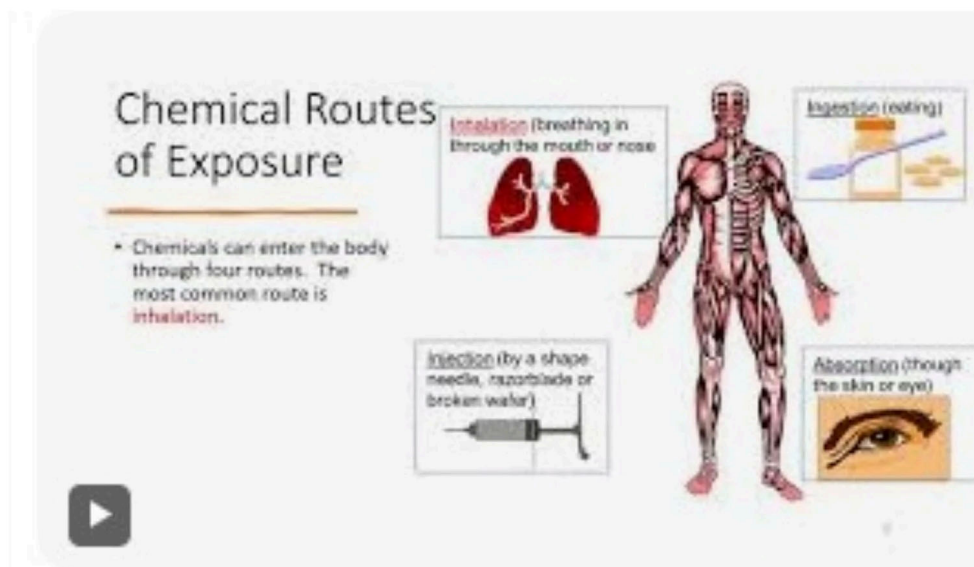
# CHEMICAL EXPOSURE 101

Are you familiar with the chemicals you work with and the potential for exposure? The information below provides fundamental information on chemical exposure and the categories of chemicals, do any apply to your job?

## Routes of Chemical Exposure

While the use of chemicals in processes, production, and goods has benefited people in many ways, these chemical substances are also the cause of chemical hazards. There are several routes of chemical exposure as described below, along with chemical hazard examples.

- **Inhalation** – that is, breathing in toxic vapors or small chemical particles
- **Absorption** – such as direct exposure to the skin by touching a chemical substance without any protection, such as wearing gloves.
- **Injection** – that is when a sharp contaminated object or needle accidentally penetrates a worker's body (such as hand or foot)
- **Ingestion** – that is when toxins are accidentally swallowed



## **Types of Chemical Hazards in the Workplace**

There are several types of chemical hazards in the workplace. While there are several classifications for these chemical hazards, many of these hazardous chemical substances fall within these 9 classifications.

### **1. Asphyxiants**



Chemical asphyxiants deprive the body of oxygen; interrupting the transfer and use of oxygen by the bloodstream.

**Asphyxiant Chemical Examples:** Carbon monoxide and cyanide.

### **2. Corrosives**



Chemical corrosives cause visible and/or irreversible changes to the composition of a material due to direct contact. Similarly, these can also cause a localized reaction in the human body at the point of contact. However, corrosive chemicals also have the potential to produce systemic chemical exposure away from the point of contact when mixed with other substances.

**Corrosive Chemical Examples:** Sulfuric acid and sodium hydroxide.

### **3. Reactive**



Chemical substances that cause a chemical hazard such as an explosion when mixed or combined with other chemical or non-chemical substances such as water or air.

### **4. Flammable**



Many chemicals are characterized as flammable as they can easily burn or ignite when exposed to oxygen.

**Flammable Chemical Examples:** [Methanol](#), acetone, propane, and butane.

## 5. Irritants



Chemical hazards that are classified as irritants cause harm to the eyes, skin, or respiratory tract of a person. Irritants are either highly, moderately, or slightly water-soluble. The hazards can manifest as redness, rashes, inflammation, coughing, or hemorrhaging. Irritants are mostly short-term severe illnesses but can also have long-lasting side effects in some people. People can also have an allergic reaction to some of these chemical materials with long-lasting health impacts or even be fatal. **Irritant Causing Chemical Examples:** [nickel chloride](#) and chromic acid.

## 6. Sensitizers



Sensitizers are also known as allergens meaning they cause an allergic reaction in people who face repeated exposure over time to certain chemicals. Reactions to chemicals deemed as sensitizers vary from person to person and can be either acute or chronic. Chemical exposure can manifest as swelling of the airway or develop into dangerous illnesses such as lung disease. Some diseases such as asthma and contact dermatitis become common among people due to over-exposure to chemicals. **Allergen Causing Chemical Examples:** Chlorine and alkalis

## 7. Carcinogens



Carcinogens are cancer-causing chemical substances, and a small amount of such a chemical is enough to severely harm human health. The hazards of such chemical substances will only appear many years after exposure. There are over 200 known human carcinogens. **Chemical Carcinogen Examples:** Benzene, cadmium, [formaldehyde](#), and [vinyl chloride](#).

## 8. Mutagens



Chemicals classified as mutagens cause genetic changes to a cell's DNA and RNA. Genetic changes can cause cancer, prevent normal biological functions, or may result in the malfunction of a particular organ. **Chemical Mutagen Examples:** Benzene, ionizing radiation, and hydrogen peroxide

## 9. Teratogens



Chemical teratogens can disrupt the normal development of a fetus causing birth defects and even the healthy advancement of pregnancy.

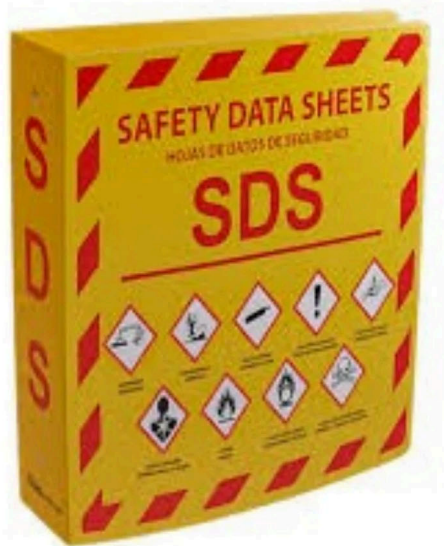
For a complete list of workplace chemicals and their hazards, refer to the [NIOSH Pocket Guide to Chemical Hazards](#) (NPG).



Keep in mind, under the *Hazardous Communication Standard/ Employee Right to Know law*; California Code of Regulations (CCR), Title 8, Section 5194 (<https://www.dir.ca.gov/title8/5194.html>), employees have the right to information on any chemical to which they may be exposed. For more information, talk to your supervisor or click on the link below.

[SLC- Safety Data Sheets |](#)  
[Resources](#)

[County of Riverside Human](#)



**KNOW  
YOUR  
RIGHTS**



# Respiratory Protection Program

Riverside County departments with employees exposed to airborne contaminants are required to implement a respiratory protection program. If employees are not protected from hazardous airborne contaminants, they risk developing severe health conditions such as lung disease, cancer, and respiratory infections. Please contact your Safety Coordinator for assistance.

## What is a Respiratory Protection Program?

A respiratory protection program is a workplace safety plan required by Cal/OSHA to protect employees from harmful airborne contaminants like dust, fumes, vapors, and biological hazards. It ensures that workers use respirators correctly and safely when engineering controls (e.g., ventilation) cannot eliminate exposure.

Cal/OSHA's respiratory protection program (CCR Title 8, §5144) requires employers to:

- **Develop a Written Program** – Establish and maintain a documented plan outlining procedures for respirator use.
- **Conduct Hazard Assessments** – Identify airborne hazards and determine the need for respiratory protection.
- **Select Appropriate Respirators** – Choose NIOSH-approved respirators based on hazard type and exposure levels.
- **Provide Medical Evaluations** – Ensure employees are medically cleared to wear respirators.
- **Perform Fit Testing** – Conduct initial and annual fit tests for tight-fitting respirators.
- **Train Employees** – Provide education on proper respirator use, limitations, and maintenance.
- **Ensure Proper Use** – Enforce correct donning, doffing, and seal checks.
- **Maintain and Store Respirators** – Clean, inspect, and store respirators properly.
- **Monitor Program Effectiveness** – Conduct regular evaluations to ensure compliance and effectiveness.

## Why is Fit Testing mandatory?

Cal/OSHA requires workers to be fit tested for tight-sealing respirators before using them at work. This is to be done annually.

Fit testing is important to ensure the expected level of protection is provided by minimizing the total amount of contaminant leakage into the facepiece through the face seal.

## Cal/OSHA recognizes several types of Fit-Test protocols:

Safety Loss Control uses Ambient Aerosol CNC Technology –

Condensed Nuclei Counting (CNC)

- TSI - Port A Count
- Measures particle difference between ambient concentrations and in mask concentrations
- Mathematical particle calculation

Mask fit testing is performed by sampling the air inside the mask and comparing this to the amount of particles contained in the air outside the mask.

CCR Title 8 §5144 Respiratory Protection & Title 8 §5199 Aerosol Transmissible Diseases

<https://www.dir.ca.gov/title8/5144.html>

<https://www.dir.ca.gov/title8/5199.html>

## Two basic types of respirators:

- Air Purifying Respirators (APR's)
- Supplied Air Respirators (SAR's)
- Both classified as: Tight fitting

## Air Purifying Respirators (APR's)

- Mechanically remove contaminants from the ambient air through a filtering media.
- Filters must be specific for contaminant.
- Are NEVER to be used in oxygen deficient atmospheres <19.5% O<sub>2</sub>



## Supplied Air Respirators (SAR's)

Provide clean breathable air from a separate source.

- Compressed air cylinder
- Compressor
- Can be used in oxygen deficient atmospheres <19.5% O<sub>2</sub>



❖ **Would you go SCUBA diving if your mask wasn't sealed?**

## WHAT IS WORKPLACE VIOLENCE?

National Institute of Occupational Safety & Health (NIOSH) defines workplace violence as “....any physical assault, threatening behavior, or verbal abuse occurring in the work setting.” Workplace Violence includes but is not limited to the following;

- **Threatening Behavior** – such as shaking fists, destroying property or throwing objects
- Verbal or written threats – expression of intent to inflict harm
- **Harassment** – any behavior that demeans, embarrasses, humiliates, annoys, alarms or verbally abuses a person that is known or would be expected to be unwelcome. This includes words, gestures, intimidation, bullying or other inappropriate activities.
- **Verbal Abuse** – swearing, insults or condescending language.
  - Please note: a single incident may be a code of conduct violation, repeated incidents may be considered workplace violence
- **Physical Attacks** – hitting, shoving, punching or kicking
- **Social Media** – Threats made through social media sites

## STATISTICS

Below are some statistics to aid in understanding the severity of workplace violence;

- Based on the Bureau of Labor Statistics in 2021-2022 there were 57,610 nonfatal workplace violence incidents that required time away from work.
- According to Occupational Safety and Health Administration, in 2023 740 workplace fatalities were due to violent acts, with homicides accounting for 61.9%
- Assaults are the 4<sup>th</sup> leading cause of work-related deaths according to NSC injury facts.

## TYPES OF VIOLENCE

### Type 1: Criminal Intent

The perpetrator has no legitimate relationship to the business or its employees and is usually committing a crime in conjunction with the violence (robbery, shoplifting, trespassing).

### Type 2: Customer Violence

Violence/threats directed at employees by customers, clients, patients, students, inmates, or any others for whom an organization provides services.

### Type 3: Violence between co-workers

Worker-on-Worker is between coworkers and is commonly referred to as lateral or horizontal violence. It includes bullying and frequently manifests as verbal and emotional abuse that is unfair, offensive, vindictive, and/or humiliating though it can range all the way to homicide. Worker-on-worker violence is often directed at persons viewed as being “lower on the food chain” such as in a supervisor to supervisee or doctor to nurse though incidence of peer-to-peer violence is also common.

#### **Type 4: Violence by Personal Relationship**

The perpetrator usually does not have a relationship with the business but has a personal relationship with the intended victim. This category includes victims of domestic violence assaulted or threatened while at work and accounts for about 5% of all workplace homicides.

### **VIOLENCE OR CONFLICT**

When considering violence between coworkers it's important to distinguish between an incident of true workplace violence versus a situation that can be better described as a conflict based on a momentary misunderstanding. Failure to make a distinction can lead to unnecessary investigations and unwarranted penalties for the accused. Conflicts are typically temporary, isolated events and are generally resolved by rational means. While conflicts can be a precursor to violence most conflicts resolve positively and do not progress. By contrast, worker-on-worker violence and abuse are often persistent, systemic, and irrational (though the abuser may feel otherwise) and frequently involve a power differential. Conflicts that fail to resolve positively may well lead further conflicts. When conflicts become persistent or systemic it may be regarded as abuse or violence. Resolving conflict between coworkers early, before it can escalate to more serious forms, is an effective method for preventing abuse between co-workers.

### **Training & How to Report**

Situational Awareness and Training are great ways to prevent workplace violence although this does not always translate to effective or immediate change it's a great way to remain vigilant. The County of Riverside has a multitude of training opportunities and resources to utilize to refresh your knowledge of Workplace Violence one of which is RIVCOTalent ECourses.

If you are a victim of Workplace Violence immediately provide a written report to Riverside County Safety Loss Control Division by filling out a 2010-1 form and review BOS Policy C-27

If you require additional information for training and resources feel free to reach out to your department's Safety Coordinator.



# Mental Health Awareness

## What is Mental Health?

Mental health includes our emotional, psychological, and social well-being. It affects how we think, feel, and act, and helps determine how we handle stress, relate to others, and make choices.

Mental illnesses affect 19% of the adult population, 46% of teenagers and 13% of children each year. People struggling with their mental health may be in your family, live next door, work in the next cubicle or sit in the same church pew.

## Mental Health Conditions

Mental illnesses are disorders, ranging from mild to severe. Many factors contribute to mental health conditions, including:

- Biological factors, such as genes or brain chemistry
- Life experiences, such as trauma or abuse
- Family history of mental health problems

Some mental health topics include:

Antisocial personality disorder, anxiety disorders, attention-deficit hyperactivity disorder (ADHD), bipolar disorder, borderline personality disorder (BPD), Co-Occurring Disorders, depression, eating disorders, post-traumatic stress disorder (PTSD), schizophrenia, seasonal affective disorder (SAD), and self-harm.

## What is Mental health awareness:

Mental health awareness is the act of learning and spreading accurate information with the goal of reducing stigma. An awareness of mental health allows us to preserve our wellbeing, address potential problems, notice warning signs as they emerge, and help others to do the same.

## Why is mental health awareness so important?

Because of misconceptions and stigma surrounding mental health issues, people often suffer in silence and don't seek treatment for their conditions. Mental health awareness is an important initiative to improve understanding of mental health conditions and increase access to healthcare for those who need it.

## Early Warning Signs & Symptoms

Not sure if you or someone you know is living with mental health problems?

Experiencing one or more of the following feelings or behaviors can be an early warning sign of a problem:

- Eating or sleeping too much or too little
- Pulling away from people and usual activities
- Having low or no energy
- Feeling numb or unexplained aches and pains
- Feeling helpless or hopeless
- Smoking, drinking, or using drugs more than usual
- Feeling unusually confused, forgetful, angry, upset, worried, or scared
- Yelling or fighting with family and friends
- Experiencing severe mood swings that cause problems in relationships
- Having persistent thoughts and memories you can't get out of your head
- Hearing voices or believing things that are not true
- Thinking of harming yourself or others
- Inability to perform daily tasks like taking care of your kids or getting to work or school

## Tips for Living Well with a Mental Health Condition

Providing an opportunity to take the next step from awareness to action for yourself, a loved one, or your community. This could be as simple as adopting a positive “mental health habit” like eating a balanced diet, getting a good night’s rest, or exercising, or offering support to a friend or family member who is struggling. Some of these tips, tools and strategies include:

- **Stick to a treatment plan.** Even if you feel better, don’t stop going to therapy or taking medication without a doctor’s guidance. Work with a doctor to safely adjust doses or medication if needed to continue a treatment plan.
- **Keep your primary care physician updated.** Primary care physicians are an important part of long-term management, even if you also see a psychiatrist.
- **Learn about the condition.** Being educated can help you stick to your treatment plan. Education can also help your loved ones be more supportive and compassionate.
- **Practice good self-care.** Control stress with activities, eat healthy and exercise, and get enough sleep.
- **Reach out to family and friends.** Maintaining relationships with others is important. In times of crisis, reach out to them for support and help.

- **Practice gratitude:** Consciously practicing gratitude may reduce feelings of stress and anxiety.
- **Volunteer:** Participating in community organizations and finding opportunities to help others can provide a positive boost and sense of purpose.

## **Mental Health Services in Riverside County**

<https://www.rcdmh.org/>

Mental health services are available to people on Medi-Cal, in Riverside County. Sometimes these services are available through your regular doctor. Sometimes they are provided by a specialist and called ‘specialty’ mental health services. These specialty services are provided through the Riverside County “Mental Health Plan” or MHP, which is separate from your regular doctor. If you believe you would benefit from specialty mental health services and are eligible for Medi-Cal, the Riverside County MHP will help you find out if you may get mental health treatment services by calling them directly at (800) 706-7500.

Service to Medi-Cal eligible consumers are authorized through the CARES Line or Assessment and consultation Team (ACT) programs.

- CARES Line: (800) 499-3008
- Helpline: (951) 686-HELP for immediate crisis help
- National Suicide Prevention Lifeline: (800) 273-8255 or 988 for immediate crisis help

## **Resources**

Great sources for mental health news and information include:

[National Institute of Mental Health](#)  
[Mental Health America](#)  
[National Alliance on Mental Illness \(NAMI\)](#)  
[Pine Rest Mental Health Resources](#)  
[Postpartum Support International](#)