

## Allergies—From small sniffles to serious reactions

Allergies and allergic reactions have the same thing in common: an overactive immune response. Most of us have experienced some form of allergy, be it sneezing, coughing, watery eyes, or itching. These symptoms can be distracting, especially at work. Other allergies are more extreme and can include breathing problems, extreme swelling, and other life-threatening symptoms. Allergies can be brought on by pollen, ragweed, certain foods, insect bites and stings, dust, latex, and many other triggers.

Most seasonal allergies usually consist of congestion; sneezing; coughing; and itchy, watery eyes. Seasonal allergies can be distracting, taking focus away from work tasks. They are most often controlled through basic over-the-counter medication. It's important to know the side effects of these medications, especially if they cause drowsiness. This can be especially dangerous for heavy equipment operators and drivers.

For more extreme allergies, you will probably have prescription medication on hand. It's extremely important for you to know how to take your medication correctly and to replace your medication when it's expired. You should also tell others where you keep your medication if it is not in your immediate vicinity. Let others know the signs and symptoms of a reaction, as you may not be able to speak if an attack happens. Extreme allergy attacks can be a frightening experience, but with proper planning and management, you can greatly reduce your chances of permanent injury.

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# EMPLOYEE SAFETY NEWSLETTER

July 2021

## Wildfire smoke protection

Although there are many hazardous chemicals in wildfire smoke, the main harmful pollutant for people who are not very close to the fire is "particulate matter" (PM) which are tiny particles suspended in the air.

Particulate matter can irritate the lungs and cause persistent coughing, phlegm, wheezing, or difficulty breathing. Particulate matter can also cause more serious problems, such as reduced lung function, bronchitis, worsening of asthma, heart failure, and early death. People over the age of 65 and people who already have heart and lung problems are the most likely to suffer from serious health effects after exposure to wildfire smoke. The smallest and usually most harmful form of particulate matter is called PM2.5 because each particle has a diameter of 2.5 micrometers or smaller. Their very small size allows the particles to become trapped deep in the lungs and even enter the bloodstream.

Various government agencies monitor the air at various locations and report the current Air Quality Index, or AQI, for those places. The AQI is a measurement of how polluted the air is. An AQI over 150 is considered unhealthy. The easiest way to find the current and forecasted AQI for PM2.5 is to go to [AirNow.gov](https://www.airnow.gov) and enter the ZIP code, town, or city where you will be working. If the AQI for PM2.5 is 151 or greater, appropriate safety measures will be implemented.

Actions to take to protect you and your coworkers from PM2.5 when the current AQI for PM2.5 is 151 or greater include:

- Locating work in enclosed structures or vehicles where the air is filtered;
- Changing procedures, such as moving workers to a place with a lower current AQI for PM2.5;
- Reducing work time in areas with unfiltered air;
- Increasing rest time and frequency and providing a rest area with filtered air; *and*
- Reducing the physical intensity of the work to help lower the breathing and heart rates.

Respirators can reduce employee exposure to wildfire smoke when they are properly selected and worn. Respirator use can be beneficial even when the AQI for PM2.5 is less than 151 to provide additional protection.

In California, when the current AQI for PM2.5 is 151 or greater, employees will be given appropriate respirators for voluntary use. If the current AQI is greater than 500, respirator use is required. Such precautions should be considered in other states, as well.

You must use and care for your respirator(s) properly. Filtering facepiece respirators (such as N95s) cannot be cleaned or disinfected, and you must dispose of them at the end of each shift or more frequently, if necessary. Make sure you clean and maintain your reusable respirator properly. Respirator filters must be replaced if they become damaged, deformed, dirty, or difficult to breathe through.

If you have symptoms such as difficulty breathing, dizziness, or nausea or have any reason to suspect overexposure to wildfire smoke, contact your supervisor immediately to get medical help.

## Loading dock safety

If you work in the loading dock area, keep these safety tips in mind:

- Keep clear of dock edges, and always be aware of the activity around you. Pay special attention to the position of forklifts and other workers.
- Open tractor-trailer doors carefully, standing to one side and stepping back to minimize the hazard of falling objects. Loads can shift during transit in improperly loaded trailers, which can expose the person who opens the trailer door to the hazards of falling boxes or product.
- Use caution when working near open or exposed dock doors, and make sure there are clear visual warnings and barriers near dock edges.
- Always close dock doors when there is no trailer in the dock to eliminate a fall hazard.
- Never jump from the loading docks, which puts unnecessary strain on your knees, feet, and back and can result in serious injuries.
- Make sure the dock plate is in place before moving from the dock to the trailer to avoid getting caught in the gap.
- Communicate clearly with truck drivers to prevent loading dock separation accidents. One type of loading dock separation accident, called an early departure, occurs when a driver of a truck that is not secured to the loading dock moves away from the dock while forklift operators or other workers are unloading or loading the truck. Use hand signals, lighting systems, signs, or mobile devices to help prevent these events by making sure the driver is aware of what is happening at the dock.

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## First aid—Treating strains and sprains: QUIZ

1. Sprains and strains are among the most common work-related injuries. TRUE or FALSE.
2. Sprains and strains only occur in the manufacturing industry. TRUE or FALSE.
3. Which of the following are causes of strains and sprains?
  - A. Repetitive motions
  - B. Overexertion
  - C. Improper lifting
  - D. All of the above
4. How often should a victim of a strain or sprain ice the area of injury?
  - A. 5 minutes several times a day
  - B. 10 minutes several times a day
  - C. 15 minutes several times a day
  - D. 20 minutes several times a day

### ANSWERS

1. TRUE. 2. FALSE. 3. D. 4. D.

## First aid—Treating strains and sprains

Sprains and strains are among the most common work-related injuries and can occur in any workplace industry, ranging from manufacturing and construction to health care and office settings. Causes of strains and sprains include improper lifting, pushing, pulling, overexertion, and performing repetitive motions.

When someone at your workplace suffers a strain or sprain, get emergency medical assistance if the victim:

- Is unable to bear weight on the injured leg or he or she cannot use the joint;
- Develops redness or red streaks that spread out from the injured area;
- Hears a "popping" sound with the injury; *or*
- Has significant swelling, pain, a fever, or open cuts.

Follow the company's policy for reporting injuries, as well as the company's procedure for first-aid treatment.

You can assist the victim using the RICE treatment to control the swelling. RICE stands for Rest, Ice, Compression, and Elevation.

- **Rest.** Have the victim take a break from the activity that caused the injury and rest the strained or sprained area.
- **Ice.** Ice the area as soon as possible using an ice or a cold pack for 20 minutes at a time. Do not apply ice directly to the skin. The victim should continue to ice the area several times a day.
- **Compression.** To prevent additional swelling and blood loss, have the victim wear an elastic compression bandage. Compressive wraps or sleeves made from elastic or neoprene are best.
- **Elevation.** To reduce swelling, have the victim elevate the injury higher than the heart while resting, if possible.

## Corrosives—Dangers of exposure

Corrosive chemicals can burn and destroy exposed parts of the body, such as eyes and skin, as well as lungs and other internal organs, on contact.

### Health hazards of corrosive materials

Corrosive materials can be highly reactive, unstable substances that can seriously injure a worker if not handled in the right way. Most are either acids or bases (which include caustics or alkalis).

- Acids are often used for cleaning solutions and in manufacturing. They can destroy body tissue.
- Bases are also widely used in cleaning agents and various other products. They can cause severe burns, lung damage, and scarring.
- In addition, some oxidizers, such as fluorine and chlorine, have corrosive properties.

### Ways you can be exposed to corrosives

- **By breathing.** Even small amounts of corrosive vapors or particles can irritate and burn your nose, mouth, throat, and windpipe; larger amounts can cause severe lung damage.
- **By swallowing.** Swallowing corrosives accidentally can severely damage your mouth, throat, or stomach and, in some cases, can result in an inability to swallow or even cause death.
- **By splashes to your eyes.** A mist or even a splash of a corrosive can damage eyes. It may only cause irritation, but scarring and blindness can also happen. Bases are especially dangerous to your eyes.
- **By contact with your skin.** Corrosives that touch your skin can produce irritation such as burns or blisters. Corrosives can sometimes even eat through the skin itself.

Corrosives are also highly reactive chemicals that can cause fire or explosion or react violently if they come in contact with other chemicals, combustible materials, or even water.

Acids react with many metals to release hydrogen, a highly flammable gas that can ignite in air.

Bases are not flammable, but intense heat develops when a solid base is dissolved in water, sometimes causing boiling and spattering over a wide area.

### Review the chemical's label and SDS

Review the corrosive substance's safety data sheet (SDS) as well as the label on the chemical's container, before you work with a particular chemical. These valuable sources of information will tell you:

- The hazards of the chemical you are using, including the risk of fire or explosion;
- The particular type of personal protective equipment (PPE) that you need for the corrosive substance you're working with;
- The first-aid instructions in case you or a coworker is exposed to the corrosive; *and*
- What you should do if there's a spill or other emergency.

## World Nature Conservation Day

Each year on July 28, World Nature Conservation Day is celebrated to raise awareness of the Earth's natural resources and encourage people to live a more sustainable life. Water, air, soil, wildlife, and minerals are examples of natural resources. Conservation is focused on protecting species from extinction, enhancing ecosystems, protecting biological diversity, as well as maintaining and restoring habitats.

Conservation and preservation are similar in that they both relate to the protection of nature. However, conservation seeks the sustainable use of nature by humans, for activities such as hunting, logging, or mining, while preservation means protecting nature from human use.

Here are some simple things you can do to make a difference in conserving the environment:

- **Reuse plastics.** Instead of throwing away single-use plastic containers, you can reuse them for other purposes, like storing other goods in them or getting crafty and make decor out of them.
- **Start a vegetable garden.** Starting a home vegetable garden comes with many benefits. Not only does it help you save money, but it also ensures the supply of healthy unadulterated veggies and fruits.
- **Use cloth bags.** Instead of using plastic bags for your shopping, shift to reusable cloth or paper bags.
- **Have a no-car day.** Driving is one of the biggest causes of pollution. If you want to use your car, first consider walking or using your bike if the journey is a short one.

## Chemical spotlight: Aldol

Aldol is a thick, colorless to pale yellow liquid. It is used in making perfumes, rubber, drugs, and dyes. It is also used as a solvent.

Aldol reacts violently with oxidizing agents, such as peroxides, chlorine, and bromine. It also reacts with metals to form flammable and explosive hydrogen gas. Store aldol in tightly closed containers in a cool, well ventilated area. Avoid all sources of ignition where aldol is used, handled, or stored.

If aldol is spilled or leaked, avoid breathing vapors, mist, or gas, and ensure adequate ventilation. Remove all sources of ignition and evacuate personnel to safe areas. Use personal protective equipment (PPE), including goggles or safety glasses, gloves, flame-retardant protective clothing, and respiratory protection.

Prevent further leakage or spillage if safe to do so, and do not let the product enter drains, sewers, underground or confined spaces, groundwater, or waterways or discharge into the environment. Contain the spillage, and then absorb it with vermiculite, dry sand, or earth. Place the spillage in a sealed container for disposal according to federal and local regulations.