



FARM SAFETY

A QUARTERLY NEWSLETTER

WINTER 1998

Carbon Monoxide

What is it and where does it come from?

Carbon monoxide is a colorless, odorless gas—a by-product of incomplete combustion. There is always some produced whenever we burn any carbon-based fuel such as natural gas, heating oil, wood, reconstituted wood logs, gasoline, charcoal, or any similar product.

Why should I be concerned about it?

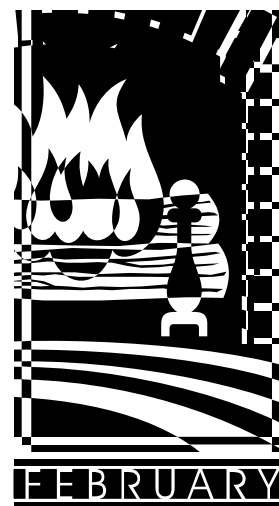
Carbon monoxide can kill you. It is estimated that between 500 and 1,000 people die from carbon monoxide (CO) poisoning every year in the United States. In

California, we usually hear of CO-related deaths from use of inappropriate indoor heaters or broken or improperly vented heaters.

Carbon monoxide interferes with the blood's ability to transport oxygen to body organs and can result in death at even very low levels. Because it is colorless and odorless, it is impossible to detect without instruments.

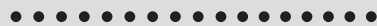
Symptoms of CO poisoning are similar to cold, flu, and allergy symptoms. Low levels of CO poisoning can result in headaches, lethargy, weakness, nausea, and muscle aches. Higher levels can cause paralysis, impaired judgment, coma, and death if left untreated.

Simply removing the victim from the source may not be enough to save his or her life. If you suspect CO poisoning, it is important to get immediate medical attention and treatment.



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What are the common sources of carbon monoxide in the home?

The most common source of carbon monoxide in California homes is the use of inappropriate or improperly installed heating devices. Examples of inappropriate heating devices are charcoal grills, gas barbecues, camp stoves, or any device that does not explicitly mention that it may be used indoors. If in doubt, do not use the device inside until you call the manufacturer.

Poorly vented appliances can be gas cooktops, gas heaters, furnaces, wood stoves, or even water heaters. These are intended for indoor use and are usually installed correctly. However, inadequate maintenance, broken parts, or backdrafting because of the design and construction of the house can make these devices dangerous.

How can I tell if carbon monoxide is making me sick?

Do you feel better when you leave the house and go to work or school? Do you feel better when going outside? Do you start to feel a headache or tired when you return home at the end of the day? Are your symptoms shared by others in your home? Low levels of carbon monoxide can be very difficult to detect and the symptoms can appear to clear up when someone leaves the source. This does not mean that the problem is solved.

I have these symptoms, but my doctor is not sure if I might have this problem at home. What should I do?

Have your doctor call the Environmental Protection Agency at 1-800-438-4318 to obtain a free copy of Indoor Air Quality: An Introduction for Health Professionals. Email: IAQINFO@aol.com or <http://www.epa.gov/iaq>.

What about a home test?

Home carbon monoxide detectors are a great idea. Many are available and range in price from about \$10 to \$300. Make sure that the device you purchase is certified by Underwriters' Laboratories (UL). Install it and maintain it according to the manufacturer's instructions. Many have a combination sensor/battery that must be changed about every two years. Carbon monoxide detectors usually use a chemical reaction sensor, which will deteriorate after a couple of years and must be changed.

What if I think I or family members have been poisoned at home?

Call 911 and tell the operator why you think you need help. The fire department can come and check your home and ventilate it in an emergency. Ambulance crews can begin the necessary treatment. If you come home during heating season and find people unconscious in your house, call 911 from a phone away from the house. You may also be overcome by carbon monoxide if you attempt rescue on your own.

What is backdrafting?

Backdrafting occurs when a naturally vented appliance loses the chimney effect, which normally carries combustion by-products up the chimney. Backdrafting can occur with furnaces, fireplaces, woodstoves, and water heaters. This can happen during low wind conditions and when there is lower air pressure in the house than outside. Running a furnace, clothes dryer, bathroom fans, and a kitchen fan can cause backdrafting, as they move air out of the house, which must be replaced from the outside. If

the doors and windows are all closed and very tight, the replacement air must come down a chimney and can cause a backdraft through any of these appliances.

How do we prevent backdrafting?

Try to start fireplaces and woodstoves when no other devices are removing air from the house. Once a draft is established, it is less likely to change into a backdraft, particularly in a properly vented and maintained device. If possible, have the water heater and furnace draw their intake air from the outside or away from the living area. If you see smoke coming back down a chimney, you have a problem that needs immediate attention.

How do I select someone to do my home maintenance?

Require licensed contractors for inspection and repair of your furnace and water heater. Check with the state regarding the status of their license and check with the local Better Business Bureau regarding any recent complaints. Ask for references and check them out. Make sure to select reputable and professional chimney sweeps to inspect and clean your chimney annually. If you burn a lot of wood, you may need a more frequent inspection. If we have an earthquake, inspect all chimneys and combustion appliances for any damage before using them.

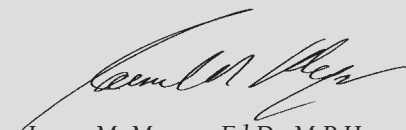
How do I control carbon monoxide?

Carbon monoxide cannot be "controlled". We must keep it out of our living areas and avoid contamination of our indoor air. Make sure that all combustion appliances in the home are UL listed for indoor use. Do not burn charcoal or gas barbecue

The Farm Safety Program exists to help promote safety and health in the workplace. Through this newsletter we hope to keep our audience aware of the many issues of occupational hazards in agriculture. The information given herein is supplied with the understanding that no discrimination is intended, and no endorsement by Cooperative Extension is implied.



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grills indoors. Keep garages vented and do not allow automotive exhaust to enter your home.

Why would a normally functioning furnace or water heater suddenly start to produce carbon monoxide?

A furnace or water heater would not suddenly start to produce carbon monoxide, but it may start to let it into your home. Possible reasons for this are that the heat exchanger has rusted or corroded, or the house has settled a bit and shifted. It is also possible that the chimney has developed an obstruction from a bird's nest, debris, or some other occurrence over the summer.

Is there any way to know that you have carbon monoxide coming in?

The best way is to get several good detectors and install and use them according to instructions. If you notice a heating appliance that makes a funny noise, starts making more noise than usual, if the furnace runs all the time, or if you smell some of the other combustion by-products, it's a good idea to get it checked by a professional. *

Working Safely with Farm Animals



Animals are involved in many thousands of farm injuries and several deaths each year. In a recent summary of farm accident data gathered from 15 states, animals were a factor in about one of every eight injuries reported, ranking second to farm machinery in total number of cases. Although animal-related injuries generally are less severe than those involving machinery, many animal injuries are serious and involve considerable loss of time, money, and productivity.

Some trends noted were: youngsters aged 5-14 were most often injured by dog bites and horse-related causes, young adults aged 15-24 were most often injured by horse-related causes, and older adults suffered injuries most often from cows and hogs. Farm family members were the most frequent victims of animal-related injuries.

Because prevention of animal-related injuries is an important part of agricultural safety, we will be addressing various aspects of animal safety as an insert to this newsletter over the next few issues.

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The Farm Safety Program is pleased to announce its new web site at the following address:

www.engr.ucdavis.edu/~bae/FarmSafety/FARMSAF.HTML

Each current issue of Farm Safety, as well as several past issues, will be accessible through this site. Our bilingual newsletter will be available in both text-only and graphics-included (PDF) formats. Other useful information will be posted periodically.

Notice of Recall of Electric In-Wall Heaters

The Consumer Product Safety Commission (CPSC) has announced that Cadet Manufacturing Company of Vancouver, WA, is recalling more than 190,000 electric in-wall heaters. Limit switches within these heaters can emit sparks and present a fire hazard. Cadet Manufacturing has received at least 44 reports of fires involving these heaters. Most of these reports resulted in fires that self-extinguished. However, Cadet has received two reports of fires causing considerable property damage. No injuries have been reported from these fires. However, the CPSC has received a 45th report of two deaths from a fire involving a Cadet heater located near a sofa. The cause of the ignition of the sofa remains under investigation.

The heaters involved in this recall may have the Cadet or Encore brand name on the heater's grill and also must have the following: (1) a model number beginning with FX, FW, LX, or ZA, followed by three numbers on a label on the front of the internal heater assembly; (2) a limit switch made of black plastic casings on the heater assembly. These casings look like small black discs and have wires attached. Only heaters with black plastic limit switches are included in the recall. Some models will have a single limit switch and others will have two limit switches. Before checking the markings on the heater assembly, consumers will need to remove the heater's grill and the screw at the top of the heater assembly. **BEFORE DOING THIS, DISCONNECT THE POWER SUPPLY TO THE HEATER OR FUSE BOX.**

These heaters have been installed in homes in Oregon, Washington, California, Idaho, Montana, and Wyoming between 1985 and 1992. Fewer than one percent were distributed nationwide under the name Encore through the following retailers: Menards, Home Base, Builders Square, Ace Hardware, and Fred Meyer.

Consumers should stop using these heaters immediately and call Cadet at 800-442-2338 (ask for Recall Department), Monday through Friday between 8:00 am and 5:00 pm PDT for further information. Although Cadet had originally agreed to arrange for a local service technician to replace the limit switches free of charge, they have informed the CPSC that it will send technicians out only to senior citizens and disabled persons who are unable to perform the replacement themselves. CPSC is still attempting to work with Cadet to ensure that the company conducts an appropriate recall. If you wish to contact the CPSC directly, contact Jane Francis at (301)504-0580.

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