



**Ventura City Fire Department**  
1425 Dowell Drive  
Ventura, CA 93003  
(805) 339-4300

## **Carbon Monoxide By the Numbers**

### **Incidents**

- In 2010, U.S. fire departments responded to an estimated 80,100 non-fire-related CO incidents in which carbon monoxide was found, or an average of nine such calls per hour. ([National Fire Protection Association](#), March 2012)
- The number of CO incidents in 2010 increased 96 percent from 40,900 incidents reported in 2003. This increase is most likely due to the increased use of CO alarms, which alert people to the presence of carbon monoxide. ([National Fire Protection Association](#), March 2012)
- 94 percent of CO incidents occur in residential properties, with 73 percent in one- or two-family homes. ([National Fire Protection Association](#), March 2012)
- CO alarms are most common in the early evening hours, peaking around 8 p.m. ([National Fire Protection Association](#), March 2012)
- CO incidents are most common between the months of November and February. ([National Fire Protection Association](#), March 2012)
- Over half (53.5 percent) of CO exposures occur between November and February. ([Centers for Disease Control and Prevention](#), 2011)
- CO poisoning is a leading cause of unintentional poisoning deaths in the United States. ([Journal of the American Medical Association](#), 2008)

### **Hospitalization**

- Every year in the U.S., more than 20,000 people are hospitalized following accidental carbon monoxide poisoning. (Centers for Disease Control Prevention study published in the *American Journal of Public Health*, August 2012)
- During 2004-2006, an estimated average of 20,636 emergency department visits for nonfatal, unintentional, non-fire-related CO exposures occurred each year. ([Journal of the American Medical Association](#), 2008)

## Death

- Every year in the U.S., nearly 450 people die from accidental carbon monoxide poisoning. (Centers for Disease Control Prevention study published in the *American Journal of Public Health*, August 2012)
- Although women and children account for most non-lethal cases of CO poisonings, 79 percent of those who die are men because they more often use fuel-burning tools or appliances. (Centers for Disease Control Prevention study published in the *American Journal of Public Health*, August 2012)
- CO-related fatality is highest among Americans 65 and older. ([Centers for Disease Control and Prevention](#), 2012)
- On average, about 170 people in the U.S. die every year from CO produced by non-automotive consumer products. These products include malfunctioning fuel-burning appliances such as furnaces, ranges, water heaters and room heaters; engine-powered equipment such as portable generators; fireplaces; and charcoal that is burned in homes and other enclosed areas. ([Consumer Product Safety Commission](#), January 2012)
- In 2008, there were an estimated 189 CO poisoning deaths associated with the use of a consumer product in the U.S. ([National Fire Protection Association](#), 2012)

## Generator-related Statistics

- Generators were involved in most cases of CO poisonings. About two-thirds of the fatal cases occurred when people used generators indoors or in a basement. (Centers for Disease Control Prevention study published in the *American Journal of Public Health*, August 2012)
- The carbon monoxide given off by a typical portable generator is equal to that of six idling automobiles. The CDC advises residents to keep generators at least 20 feet away from any home. (Centers for Disease Control and Prevention, August 2012)
- In 2005 alone, CPSC staff is aware of at least 94 generator-related CO poisoning deaths. Forty-seven of these deaths were known to have occurred during power outages due to severe weather, including Hurricane Katrina. ([Consumer Product Safety Commission](#), January 2012)

## Miscellaneous

- Since 2000, more than 800 boating-related CO poisonings in 35 states have been identified with over 140 of these resulting in death. Over 300 of the CO poisonings occurred on houseboats, with more than 200 of these attributed to generator exhaust alone. ([Centers for Disease Control and Prevention](#), 2012)

- Average CO levels in homes without gas stoves vary from 0.5 to five parts per million (ppm). Levels near properly adjusted gas stoves are often five to 15 ppm and those near poorly adjusted stoves may be 30 ppm or higher. ([US Environmental Protection Agency](#), 2012)
- Most people will not experience any symptoms from prolonged exposure to CO levels of approximately one to 70 ppm but some heart patients might experience an increase in chest pain. As CO levels increase and remain above 70 ppm, symptoms become more noticeable and can include headache, fatigue and nausea. At sustained CO concentrations above 150 to 200 ppm, disorientation, unconsciousness and death are possible. ([Consumer Product Safety Commission](#), January 2012)
- A Washington State study revealed that Hispanic populations have a four times greater risk and black populations have a three times greater risk than white populations for CO poisoning. The most common source of CO poisoning among these populations is burning charcoal briquettes. Approximately 66 percent of Hispanic victims and 40 percent of black victims became poisoned as a result of burning charcoal briquettes indoors. ([Environmental Protection Agency](#), 2008)