

PUBLIC HEALTH FACT SHEET

Chlorine

What is Chlorine?

Chlorine is a poisonous, greenish-yellow gas with a choking odor. Chlorine is a very corrosive and hazardous chemical that is usually combined with other chemicals. It is used to disinfect water, purify metals, bleach wood pulp and make other chemicals. Household bleach, used to whiten fabric or remove mold from surfaces, is a 5% solution of stabilized chlorine.

How can I be exposed to Chlorine?

Exposure to chlorine gas is usually due to industrial processes or accidental spills. Chlorine, in small amounts, is used to disinfect some public water supplies when bacteria contamination threatens public health.

- ◆ **Breathing:** Most high-level exposure happens in the workplaces where chlorine is used. People may inhale chlorine when using chlorine bleach or when living near an industry that uses chlorine.
- ◆ **Drinking/Eating:** Low level exposure can occur when water that contains chlorine is used for drinking or for food preparation.
- ◆ **Body Contact:** The body does not absorb chlorine well. However, small amounts can pass through the skin when people are exposed to chlorine gas, chlorine bleach, or bathing water with high chlorine levels. Low level exposure can occur when people handle soil or water containing chlorine.

How does Chlorine exposure affect your health?

Short Term high-level exposures:

- ◆ Liquid chlorine bleach and its vapors are irritating to the eyes. Touching liquid bleach can cause skin irritation. Drinking chlorine bleach can cause throat and stomach irritation, nausea, and vomiting.
- ◆ Low doses of chlorine will burn skin, eyes, nose, throat, lungs and teeth.
- ◆ At higher chlorine levels, more severe health effects occur such as, burning of the lungs, fluid buildup (pulmonary edema) and death.

Long Term Health Effects:

After exposure for several years, the following can occur:

- ◆ Repeated exposure to chlorine may result in bronchitis or pneumonia. People with lung disease, smokers and those with breathing problems are more sensitive to chlorine.

Diagnosing chlorine exposure is difficult unless known exposure has occurred.

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What is the treatment for Chlorine Exposure?

There is no specific antidote. Always remove exposed persons from the source and provide fresh air. If eyes or skin were exposed, rinse with plenty of uncontaminated water. Provide oxygen if there is shortness of breath or difficulty breathing.

Precaution:

DO NOT MIX household bleach with acid-containing or ammonia-containing cleaners. Dangerous levels of harmful gas can be released.

For more information on Chlorine, call (248) 858-1406 or toll free 1 (800) 848-5533.