
Benzene

Patient Information Sheet

This handout provides information and follow-up instructions for persons who have been exposed to benzene.

What is benzene?

Benzene is a clear, colorless liquid with a sweet odor when in pure form. It burns readily. Benzene is obtained from crude petroleum. Small amounts may be found in products such as cigarette smoke, paints, glues, pesticides, and gasoline.

What immediate health effects can be caused by exposure to benzene?

Breathing benzene vapor in small amounts can cause headache, dizziness, drowsiness, or nausea. With more serious exposure, benzene may cause sleepiness, stumbling, irregular heartbeats, fainting, or even death. Benzene vapors are mildly irritating to the skin, eyes, and lungs. If liquid benzene contacts the skin or eyes, it may cause burning pain. Liquid benzene splashed in the eyes can damage the eyes. The degree of symptoms depends on the amount of exposure. Special consideration regarding the exposure of pregnant women is warranted since benzene has been shown to have a small negative effect on genes and crosses the placenta; thus, medical counseling is recommended for the acutely exposed pregnant woman.

Can benzene poisoning be treated?

There is no specific antidote for benzene, but its effects can be treated, and most exposed persons recover fully. Persons who have experienced serious symptoms may need to be hospitalized.

Are any future health effects likely to occur?

A single small exposure from which a person recovers quickly is not likely to cause delayed or long-term effects. After a severe exposure, some symptoms may take a few days to develop. Repeated exposure to benzene may cause a blood disorder (i.e., aplastic anemia and pancytopenia) and cancer of blood-forming cells (i.e., leukemia). Aplastic anemia and leukemia have been reported in some workers exposed repeatedly to benzene over long periods of time.

What tests can be done if a person has been exposed to benzene?

Specific tests for the presence of benzene in blood generally are not useful to the doctor. Phenol, muconic acid or S-phenyl-N-acetyl cysteine (PhAC), breakdown products of benzene, can be measured in urine to prove benzene exposure. Other tests may show whether injury has occurred in the heart, kidneys, blood, or nervous system. Testing is not needed in every case.

Where can more information about benzene be found?

More information about benzene can be obtained from your regional poison control center; the state, county, or local health department; the Agency for Toxic Substances and Disease Registry (ATSDR); your doctor; or a clinic in your area that specializes in occupational and environmental health. If the exposure happened at work, you may wish to discuss it with your employer, the Occupational Safety and Health Administration (OSHA), or the National Institute for Occupational Safety and Health (NIOSH). Ask the person who gave you this form for help in locating these telephone numbers.

Follow-up Instructions

Keep this page and take it with you to your next appointment. Follow *only* the instructions checked below.

Call your doctor or the Emergency Department if you develop any unusual signs or symptoms within the next 24 hours, especially:

- eye and skin irritation
- bronchial irritation, cough, hoarseness, tightness in chest
- drowsiness, dizziness, headache, convulsions
- irregular heart beats

No follow-up appointment is necessary unless you develop any of the symptoms listed above.

Call for an appointment with Dr. _____ in the practice of _____.
When you call for your appointment, please say that you were treated in the Emergency Department at _____ Hospital by _____ and were advised to be seen again in _____ days.

Return to the Emergency Department/ _____ Clinic on (date) _____ at _____ AM/PM for a follow-up examination.

Do not perform vigorous physical activities for 1 to 2 days.

You may resume everyday activities including driving and operating machinery.

Do not return to work for _____ days.

You may return to work on a limited basis. See instructions below.

Avoid exposure to cigarette smoke for 72 hours; smoke may worsen the condition of your lungs.

Avoid drinking alcoholic beverages for at least 24 hours; alcohol may worsen injury to your stomach or have other effects.

Avoid taking the following medications: _____

You may continue taking the following medication(s) that your doctor(s) prescribed for you: _____

Other instructions: _____

• Provide the Emergency Department with the name and the number of your primary care physician so that the ED can send him or her a record of your emergency department visit.

• You or your physician can get more information on the chemical by contacting: _____
_____ or _____, or by checking out the following Internet Web sites: _____;

Signature of patient _____ Date _____

Signature of physician _____ Date _____