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## Information and recommendations for patients

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- Patients exposed only to styrene vapor do not pose a significant risk of secondary contamination. Patients whose clothing or skin is contaminated with liquid styrene (boiling point 145°C, 293°F, respectively) can secondarily contaminate rescue and medical personnel by direct contact or evaporation of styrene.
  - Styrene is irritating when it comes in contacts with the eyes, skin, and throat and causes headache, nausea, vertigo, dizziness, weakness, disorientation, and unconsciousness. Central and peripheral neuropathy has been noted.
  - There is no antidote to be administered to counteract the effects of styrene. Treatment consists of supportive measures.
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### Substance information

Styrene (C<sub>8</sub>H<sub>8</sub>), CAS 100-42-5

Synonyms: vinylbenzene

Styrene is, at room temperature, a colorless to yellow, oily liquid with a boiling point of 145°C, respectively 293°F. Both vapor and liquid are potential fire and explosion hazards. Styrene has a sweet, sharp odor at air concentrations of 0.017 – 1.9 ppm, with rapid olfactory fatigue. It is slightly soluble in water, but soluble in alcohol, ether, and acetone. Styrene undergoes spontaneous polymerization. Carbon monoxide may be released in a styrene fire.

Styrene is an organic solvent with a high evaporation rate used in the manufacture of polystyrene plastics, protective coatings, styrenated polyesters, copolymer resins with acrylonitrile and butadiene, and as a chemical intermediate. Styrene-butadiene rubber is the most widely employed type of synthetic rubber.

### What immediate health effects can result from exposure to styrene?

Most exposures to styrene occur by inhaling the vapor. Exposure to small amounts usually irritate the eyes, skin, nose and throat and cause headache, nausea, vertigo, dizziness, weakness, disorientation, and unconsciousness. Central and peripheral neuropathy and alterations of liver enzymes have been noted. Severe exposure may cause coma and death.

### Are any future health effects likely to occur?

A single small inhalation exposure from which a person recovers quickly is not likely to cause delayed or long-term effects. Central and peripheral neuropathies (disturbance of psychomotor performance, persistent or premature dementia, distal hypesthesia and decreased nerve conduction velocities) and ototoxicity have been observed in chronically exposed workers. Some people who have had serious inhalation exposures may tend to develop airways effects.

## 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:
  - coughing, wheezing, difficulty breathing or shortness of breath
  - chest pain or tightness
  - increased pain or a discharge from exposed skin or eyes
  - headache, nausea, dizziness
- ( ) 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 3 days; smoke may worsen the condition of your lungs.
- ( ) Drinking of alcoholic beverages is forbidden for at least three days; alcohol worsen your clinical conditions.
- ( ) Avoid taking the following medications: \_\_\_\_\_  
\_\_\_\_\_
- ( ) You may continue taking the following medication(s) that your doctor(s) prescribed for you: \_\_\_\_\_  
\_\_\_\_\_
- ( ) Other instructions: \_\_\_\_\_  
\_\_\_\_\_

Signature of patient \_\_\_\_\_ Date \_\_\_\_\_  
Signature of physician \_\_\_\_\_ Date \_\_\_\_\_

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