

TOXIC SMOKE INHALATION

1. Ensure your own safety before entering a potentially dangerous environment.
2. Remove the patient from exposure.
3. Administer high flow **O₂**.
4. Establish IV/IO access.
5. Administer IV/IO fluids, as necessary to maintain systolic BP of 90 mmHg.
6. Apply cardiac monitor.
7. Perform assessment of upper airway. To help determine the need for early **endotracheal intubation** look for stridor, severe facial burns, and soot in the airway.
8. If wheezing is present, administer **albuterol (Ventolin[®])** and **ipratropium bromide (Atrovent[®])** via SVN. May repeat Ventolin[®] if wheezing persists.
9. Repeat treatments with Ventolin[®] only, using small volume nebulizer. May be continued if symptoms persist
10. Assess clinical severity of suspected carbon monoxide, cyanide or combined exposure.
11. Consider administration of **hydroxocobalamin**, if the situation involves a confined space with combustion of possible cyanide gas producing substrates (see table 4.1), including :
 - ✓ Wool
 - ✓ Synthetic fibers
 - ✓ Plastics
 - ✓ Various building materials
 - ✓ Dumpster fire
 - ✓ Vehicle fire.

Note: A typical internal combustion engine exhaust does not produce cyanide gas.

Table 4.1:

SITUATIONS	SYMPTOMS	SIGNS
✓ Confined space	✓ Headache	✓ Altered mental status
✓ Burning synthetics	✓ Confusion	✓ Seizures or coma
✓ Burning wool	✓ Dyspnea	✓ Dilated pupils
✓ Dumpster fires	✓ Chest tightness	✓ Hyperventilation (early)
✓ Vehicle fires	✓ Nausea	✓ Hypoventilation (late)
		✓ Hypertension (early)
		✓ Hypotension (late)
		✓ Vomiting

12. If patient is in Cardiopulmonary arrest (CPA), administer hydroxocobalamin.
13. Prior to hydroxocobalamin, measure carbon monoxide level, if equipment is available, and obtain blood sample for subsequent cyanide assay.
14. If possible, document the nature of the inhaled smoke, the duration of the exposure, whether or not the patient was in an enclosed environment, and whether the patient sustained a loss of consciousness.
15. In adult cases of definite isolated CO poisoning contact medical control for consideration of transport to the nearest hospital based hyperbaric facility.