
Information and recommendations for patients

- **Severe cholinesterase-inhibiting chemical poisoning may lead to death within minutes. Given reason to believe that cholinesterase-inhibiting chemical is present, there are many symptoms and signs with a large range of severity such as vomiting, diarrhea, excessive secretions, sweating, shortness of breath, tremor, weakness, headache, confusion, or coma to suggest the diagnosis.**
 - **If the patient has symptoms suggestive of cholinesterase-inhibiting chemical poisoning, the airway is secured, and 100% oxygen is given. The appropriate emergency antidote is atropine.**
 - **Before approaching the patient, the first responder must make sure that he does not risk exposing himself to cholinesterase-inhibiting chemicals.**
 - **Patients whose vomitus, skin or clothing is contaminated with cholinesterase-inhibiting chemical may secondarily contaminate rescue and medical personnel.**
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Substance information

Cholinesterase-inhibiting chemicals, such as terbufos (COUNTER), phorate (THIMET), dimethoate (CYGON), temephos (ABATE), carbaryl. Synonyms: Anti-cholinesterase pesticides; **organophosphate** and N-methyl carbamate insecticides.

These chemicals are the most widely used insecticides available today. There are hundreds of common and trade names for these chemicals on the market. All apparently share a common mechanism of cholinesterase inhibition and can cause similar acute symptoms. However, there is a wide range of potency among these agents and there may be some differences in toxicity and management. Thus, identification of the specific agent or of the general class of agent is quite important.

What immediate health effects may result?

Onset of symptoms may occur in minutes or be delayed up to 12 hours. While low-level exposures may cause biochemical effects without producing symptoms, mild poisoning typically results in a normal level of consciousness and typical first-onset symptoms: salivation, tearing of the eyes, urination, diarrhea, gastrointestinal distress, and vomiting. Some other presenting symptoms include nausea, sweating, and a tight chest. Pupillary constriction is a characteristic sign. Severe poisoning includes an altered state of consciousness, heavy secretions and sweating, abnormal pupillary size, weakness and muscle twitching, chest pain, and shortness of breath. Life-threatening poisoning includes coma, seizures, massive secretions, cyanosis, and respiratory failure. Death can result if treatment is not begun rapidly.

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. Some people who have had serious exposures to certain organophosphates have developed nerve and brain damage that may not completely get better.

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:
- irritability, confusion, or fatigue
 - coughing, wheezing or shortness of breath
 - muscle weakness and twitching
 - nausea, vomiting, cramps or diarrhea
 - blurred vision or difficulty seeing in a dark room
- () 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, but avoid further exposures to cholinesterase-inhibiting chemicals until cleared by the physician.
- () 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; alcohol may 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 _____

References

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