



Poison HOTLINE

Partnership between Iowa Health System and
University of Iowa Hospitals and Clinics

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Did you know

Mothballs are not only problematic by ingestion, but also by breathing in the vapors. Mothballs produce their distinctive odor when the chemical evaporates from the mothball. The more mothballs in a given area, the more vapors produced and the stronger the odor. Vapors from mothballs can cause eye, nose and mucous membrane irritation. Other symptoms can include headache, nausea and vomiting. Fortunately, severe problems from exposure to the vapors are rare and usually only occur after prolonged exposure. For questions about mothball exposures, call the ISPCC at **1-800-222-1222**.

Mothball Ingestions

Every year, the ISPCC receives numerous calls regarding mothball exposures. Fortunately, most mothball exposures are unintentional and occur in children, and rarely cause major effects. The most common chemical used in mothballs is paradichlorobenzene (PDB), but mothballs are also made of naphthalene and camphor. Since mothballs may be stored for multiple decades, it may be hard to know which of the three chemicals the patient may have been exposed to. Given how concentrated the chemicals are in mothballs, ingestion of as little as one mothball could cause problems.

Ingestion of PDB-containing mothballs will cause nausea and vomiting. Rare effects from PDB ingestions include liver toxicity, hemolytic anemia and methemoglobinemia (MetHb).

Ingestion of naphthalene-containing mothballs can result in nausea, vomiting, abdominal pain, diarrhea, fever and mental status changes. Severe toxicity can include seizures and coma. Naphthalene is an oxidizing chemical and can cause hemolytic anemia and / or MetHb, which is usually becomes clinically evident 1 to 3 days post exposure. While anyone exposed to naphthalene is at risk for developing hemolysis or MetHb, persons with glucose-6-phosphate dehydrogenase (G6PD) deficiency, sickle cell anemia or sickle cell trait are at increased risk for developing these complications. Those with G6PD deficiency are more likely to develop hemolysis than MetHb. Hemolysis can lead to hemoglobinuria and acute renal injury.

Ingestion of camphor-containing mothballs can lead to nausea, vomiting and abdominal pain. Camphor ingestions can cause seizures, which usually occur 2-3 hours post ingestion but have occurred as late as 9 hours post ingestion. Severe camphor exposures can cause hallucinations, delirium, hyperreflexia, status epilepticus, respiratory failure and death.

Treatment for mothball ingestions depends in part on which chemical was ingested. Gastric decontamination may be appropriate, but should never be performed on a patient with an unprotected airway, a patient who is unconscious or may soon lose consciousness, or a patient who is seizing or has ingested a seizure-inducing substance. Patients may need to be monitored for hemolysis and / or MetHb. Seizures and agitation are treated with liberal amounts of benzodiazepines.

*Edward Bottei, MD
Medical Director, ISPCC*

POISON
Help
1-800-222-1222

The logo for Poison Help. It features the word "POISON" in a bold, black, sans-serif font at the top. Below it, the word "Help" is written in a large, bold, black, sans-serif font. To the right of the letter "e" in "Help" is a red pill bottle with a white cap and a white skull and crossbones symbol on its side. Below "Help" is the phone number "1-800-222-1222" in a bold, black, sans-serif font.

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