



New York State Department of Health Bureau of Emergency Medical Services

IMPORTANT ADVISORY AND UPDATE

Subject: Ricin

SOURCE: Centers for Disease Control (CDC)
TYPE: Advisory
DATE OF ALERT: 02/04/2004
SHORT DESCRIPTION: Ricin in US Senate office in Washington D.C.

NARRATIVE:

On Monday, February 2, 2004, powder was found in a mail processing room in the Dirksen Senate office building in Washington D.C. Initial tests were positive for the poison, ricin. These results are considered preliminary and additional testing is underway to clarify these results and determine whether the initial test was accurate.

In addition to the risk for inhalation, there is a potential exposure from injection and hand-to-mouth exposure, leading to ingestion. EMS personnel are urged to review the signs and symptoms of both inhalation and ingestion of ricin and consider the diagnosis with their patients.

Ricin is extremely toxic and may be fatal. Ricin and Abrin, (a closely related toxin), cause toxicity by disrupting ribosomal function and blocking protein synthesis. Ricin poisoning is **not** contagious.

HISTORY:

Ricin is a naturally occurring plant toxin derived from castor beans, which are also the source of castor oil. Caster bean processing is a worldwide activity; therefore, the raw materials for making ricin are easily available. Ricin is easy to produce and is stable.

HEALTH EFFECTS:

Ingestion: Symptoms following ingestion typically begin in about 6 hours and include vomiting and diarrhea that may become bloody, followed by hypovolemic shock.

Inhalation: Symptoms following inhalation usually begin in 8 hours and include difficulty breathing, fever, cough, nausea, and tightness in the chest followed by pulmonary edema, respiratory failure.

Injection: Pellets of ricin, or ricin dissolved in a liquid, can be injected, resulting in pain at the injection site, followed by fever, weakness, nausea, and vomiting.

All routes of entry also include multisystem organ failure. Weakness and influenza-like symptoms of fever, myalgia, and arthralgia may also be reported.

TREATMENT:

Treatment is essentially supportive. There is no antidote.
Depending on the route and quantity of exposure, death may occur in 36-72 hours.

PREVENTION:

In the event that your agency responds to a suspected ricin exposure **avoid all contact. Ricin may adhere to clothing.** Use strict contact and respiratory protection and good hygiene!

Follow the Department's policy statements:

01-08: Re: Unknown Dry Substance / Suspected Anthrax Response Advisory

03-02: Re: EMS Response Planning to a Suspected Biological/Infectious Disease Incident

03-11: Re: Respiratory Disease Precautions

Additional information about ricin can be found on the CDC Website at

<http://www.bt.cdc.gov/agent/ricin/index.asp>.

<http://www.bt.cdc.gov/agent/ricin/erc9009-86-3.asp>

<http://www.bt.cdc.gov/agent/ricin/toxidrome.asp>

<http://www.bt.cdc.gov/agent/abrin/basics/facts.asp>

<http://www.bt.cdc.gov/agent/abrin/erc1393-62-0.asp>