

Fact Sheet

Ricin



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What is Ricin?



Ricin is a potent toxin derived from beans of the castor plant. The naturally occurring toxin is fairly easily removed from the bean pulp waste, which remains after castor oil extraction. Ricin can be in the form of a powder, pellet, liquid, or an aerosol for intentional dispersal.

Exposure

Poisoning can occur if ricin is inhaled, swallowed, or injected. Ricin poisoning has followed accidental ingestion of castor beans, has occurred in suicide attempts, and has been used in acts of terrorism and assassination. There have been several cases of ricin possession in recent years, both in the United States and in other countries.

Ricin poisoning cannot be spread from person-to-person through casual contact; however, it is possible that a person whose clothing is contaminated could expose others in a confined space (like an ambulance).

Health Effects

Symptoms of ricin poisoning depend on the dose received and route of exposure. Inhaled ricin is much more toxic than exposure through other routes. Symptoms usually begin within six hours of ingestion exposure and within eight hours of inhalation exposure.

For immediate assistance, call the Poison Control Center Hotline: 1-800-222-1222.

- Inhaling ricin initially causes flu-like symptoms such as cough, fever, nausea, tightness in the chest, and difficult breathing. It can result in death from respiratory and circulatory failure.
- Exposure by eating contaminated food and/or water initially causes profuse vomiting and possibly bloody diarrhea. Fever and abdominal pain could occur later. Ricin poisoning can result in death from multiple organ failure.
- Exposure by injection causes localized death of muscle tissue and lymph nodes. It can result in death from multiple organ failure.

Diagnosis

No widely available and reliable test exists to confirm individual exposure. The diagnosis of ricin poisoning is largely based on symptoms and should be suspected in a setting of mass casualties with a similar and appropriate clinical picture. Health care providers should contact their local health department immediately if they suspect a patient has been exposed.

Treatment

There are no antidotes or vaccines currently available. Hospital care is necessary to support the victim and treat the effects of the toxin.

If exposed to ricin, move to an area of fresh air. If indoors, leave the building. If outdoors, move upwind (i.e., walk with the wind in your face) and away from the area of release.

If exposed, remove clothing (taking care to avoid skin contact with contaminated clothing) and rapidly wash the entire body with soap and water. Seek medical care immediately. Clothing (and any other object that came into contact with the contaminated clothing) should be placed inside a plastic bag, taking care to avoid skin contact with contaminated clothing. Seal this bag, place it inside another plastic bag, and call 911 or alert emergency services to its location so it can be handled appropriately.



For more sources of information on this topic visit or contact:

ST. CLAIR COUNTY HEALTH DEPARTMENT www.scchealth.co

MICHIGAN DEPARTMENT OF COMMUNITY HEALTH www.michigan.gov/mdch

CENTERS FOR DISEASE CONTROL AND PREVENTION www.cdc.gov

MICHIGAN DEPARTMENT OF COMMUNITY HEALTH TOXICS AND HEALTH HOTLINE: 1-800-648-6942

MICHIGAN OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (MIOSHA) www.michigan.gov/miosha

THE AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY: www.atsdr.cdc.gov 1-888-422-8737