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What is ricin?

Ricin is a poison found naturally in castor beans. If castor beans are chewed and swallowed, the ricin that comes out can cause harm. Ricin can be made from the material left over from processing castor beans. Experts are concerned that terrorist groups or others might make ricin and use it to intentionally poison people.

Who gets ricin poisoning?

Ricin poisoning is extremely rare in the United States. While castor beans and ricin can be swallowed, accidental exposure is not likely. Ricin can be made into a terrorist weapon, and if that happens, ricin could be used to expose people through the air, food, or water.

How can people be exposed to ricin?

Ricin can be made into a powder, mist or pellet, or dissolved in liquid. It is dangerous if it is breathed in, injected, or swallowed; even very small amounts could be enough to kill a person. Ricin poisoning cannot spread from one person to another.

What are the symptoms of ricin poisoning?

The symptoms of ricin poisoning can be different depending on how the poison enters the body:

- If it is breathed in, symptoms can include difficulty breathing, fever, cough, nausea and chest tightness. Eventually, symptoms may worsen and cause low blood pressure, respiratory failure, and even death.
- If it is injected, symptoms can include muscle pain, weakness, vomiting, and shock.
- If it is swallowed, symptoms can include vomiting, diarrhea and stomach cramps. Severe illness can include bloody diarrhea, bloody vomit, and shock.
- If there is contact with the skin or eye, symptoms can include redness and pain of the skin and eye. Ricin is unlikely to be absorbed through intact skin.

How soon after exposure do the symptoms appear?

Symptoms can appear as early as four to eight hours after exposure and as late as 24 hours after exposure.

How is ricin poisoning diagnosed?

While confirmatory testing for ricin poisoning is not available, public health staff may request testing of urine specimens to test for certain markers.

What is the treatment for ricin poisoning?

There is no antidote (medicine) for ricin poisoning. People exposed to ricin should seek medical care to treat symptoms and minimize the effects of the poisoning.

Do people who have been in contact with someone with ricin poisoning need to be tested and treated?

Ricin poisoning cannot spread from one person to another. However, you can be exposed if you come in contact with someone who has ricin on their body or clothes.

What should people do if they have been exposed to ricin?

It is important to act quickly if exposed.

- If you have breathed a chemical, immediately move to fresh air.
- If liquid chemical soaks your clothes or skin, then take all clothes off right away. Cut clothes off instead of pulling them over your head. Contaminated clothes and other belongings (such as watches, jewelry, and purses) should be placed somewhere away from other people (for example, sealed in a double layer of plastic bags, if available). Call your local health department or emergency management agency to request advice on disposal.
- Wash your skin and hair with soap and large amounts of water to flush away the liquid chemical. If you cannot find soap, just use plain water. Flush eyes with water following liquid exposure to the eye.
- If you have been exposed to powder, remove contaminated clothing and wash exposed skin and hair with soap and water.
- People feeling sick should get medical care immediately. If you need immediate medical attention, call 911 or go to a local emergency department. Often the local emergency department is the best place for a medical evaluation after a chemical exposure. Always remove contaminated clothing before entering a medical facility.

How can I get more information about ricin?

- If you have concerns about ricin poisoning, contact your healthcare provider.
- Call your local health department. You can find your local health department at vdh.virginia.gov/health-department-locator/.
- Visit <https://emergency.cdc.gov/agent/ricin/index.asp> for more information.

[Ricin: Overview for Health Care Providers](#) (Updated May 2023)

Key Medical and Public Health Interventions After Identification of a Suspected Case

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