

Ricin

Fact Sheet



Maine Center for Disease
Control and Prevention
An Office of the
Department of Health and Human Services

Paul R. LePage, Governor

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What is ricin?

Ricin is a poison that is found naturally in castor beans. Ricin can be made from the waste that is left over when castor beans are processed. Ricin can be in the form of a powder, mist or pellet. If ricin is made into a mist, or put in food or water, you can't see it or smell it.

Who gets ricin poisoning?

It would take an act that was done on purpose to make ricin and use it to poison people. Ricin can be put into food or water and be swallowed. People can breathe in ricin mist or powder. Pellets of ricin, or ricin dissolved in a liquid, can be injected into people's bodies. Ricin poisoning cannot be spread from person to person. Ricin poisoning has resulted from suicide attempts, work in certain occupations, and acts of bioterrorism and murder.

What are the signs and symptoms of ricin poisoning?

Ricin poisoning may not always cause death. The effects of ricin poisoning depend on whether ricin was swallowed, breathed in or injected.

Many organs can be affected.

- Ricin in food or water causes vomiting and diarrhea that may become bloody. Severe fluid loss may happen followed by low blood pressure. Other signs or symptoms may include hallucinations, seizures and blood in the urine. Within several days, the person's liver, spleen and kidneys might stop working and the person could die.
- Breathing in ricin makes it hard to breathe and can cause fever, cough, nausea and tightness in the chest. Heavy sweating may follow and fluid may build up in the lungs. This would make breathing even harder and the skin might turn blue. Finally, low blood pressure and respiratory failure may happen, leading to death.
- Injecting ricin can destroy muscles around the injection site and cause many organs to fail and even lead to death.

- Ricin is not likely to be taken up through healthy skin. If ricin touches your skin or eyes, it will cause redness and pain.

If you have these signs and symptoms and have come in contact with ricin, see a healthcare provider immediately.

How soon do symptoms appear?

Symptoms from ricin poisoning most often appear four to eight hours after contact.

How is ricin poisoning diagnosed?

There is no widely available, reliable medical test to confirm that a person has been in contact with ricin. Ricin poisoning is diagnosed when a laboratory finds the poison or evidence of a reaction to the poison in a sample of a person's blood, respiratory fluids or urine. Environmental samples collected from filters, swabs or wipes may also be tested.

How is ricin poisoning treated?

There is no specific treatment for ricin poisoning. Healthcare providers will treat the symptoms.

What do I do if I think I was exposed to ricin?

Call 911.

Where can I get more information?

For more information contact your healthcare provider or local health center. You can also contact Maine Center for Disease Control and Prevention by calling 1-800-821-5821 or visiting www.mainepublichealth.gov. The federal Centers for Disease Control and Prevention website, <http://www.cdc.gov> and the Emergency Preparedness and Response Website, <http://emergency.cdc.gov>, are other excellent sources of information.

Updated on 3/27/15

Sources of Information: Centers for Disease Control and Prevention <http://www.bt.cdc.gov/agent/ricin/facts.asp> (accessed 3/27/15)

California Department of Public Health

<http://www.bepreparedcalifornia.ca.gov/BeInformed/ChemicalEmergencies/Pages/RicinQuestionsAnswers.aspx> (accessed 3/27/15)

Wisconsin Division of Public Health <https://www.dhs.wisconsin.gov/publications/p4/p42084.pdf> (accessed 3/27/15)