

# PUBLIC HEALTH FACT SHEET

## Ricin

Massachusetts Department of Public Health, 305 South Street, Jamaica Plain, MA 02130

### **What is ricin?**

Ricin is a poison that can be made from waste left over after processing castor beans (source of castor oil). It can be made in the form of a powder, a mist or a pellet, or it can be dissolved in water or a weak acid. Very hot or very cold temperatures do not affect ricin.

### **How can people be exposed to ricin?**

People can be exposed by swallowing it, breathing it or by having it injected into their bodies. Any of these exposures can affect many organs in the body. Accidental exposure is highly unlikely. It would take a deliberate act to make ricin and use it to poison people. If that were done, people could be exposed by breathing in ricin mist or powder or by eating food or drinking water that contains ricin. Ricin pellets or ricin dissolved in a liquid can also be injected into people's bodies. Ricin poisoning cannot be spread from person to person through casual contact.

### **What are the symptoms of ricin poisoning?**

If you swallow enough ricin you would develop vomiting and diarrhea that may become bloody. If you breathe in enough of it, the likely symptoms would be difficulty breathing, cough, nausea and tightness in the chest. Exposure to enough ricin can seriously damage organs and result in death. Although ricin can cause death, exposed people who live longer than 5 days without complications will probably survive.

### **How soon do symptoms of ricin poisoning appear?**

Symptoms may appear 6-8 hours after exposure. Illness from this poison can last for days to weeks.

### **How do people know if they have been exposed to ricin?**

There is no reliable test to confirm ricin exposure. Your doctor would need to look for a certain combination of symptoms.

### **How is ricin poisoning treated?**

Ricin poisoning is treated with supportive medical care, such as helping the person breathe, giving intravenous fluids and giving medications to treat swelling. There is no specific treatment for ricin poisoning.

### **Where is ricin found and how is it used?**

Castor beans are used throughout the world to make castor oil. Ricin has some medical uses, such as in bone marrow transplants and in killing cancer cells.

### **What should people do if they think they've been exposed to ricin?**

If you believe you have found ricin or come in contact with it, call 911 and wait for emergency help to come. You can also contact the Massachusetts Poison Control Center at 1-800-222-1222 or 1-888-244-5313 for the hearing impaired.

## **Can ricin be used for bioterrorism?**

Yes. Bioterrorism is the use of any poison or biological organism to intentionally hurt people or create fear. The Centers for Disease Control and Prevention lists ricin as a possible bioterrorism agent.

## **Where can I get more information?**

- Your doctor, nurse or clinic, or your local board of health (listed in the phone book under local government)
- The Massachusetts Department of Public Health (MDPH), Division of Epidemiology and Immunization at (617) 983-6800 or on the MDPH Website at [www.mass.gov/dph](http://www.mass.gov/dph)
- The Centers for Disease Control and Prevention (CDC) website at [www.bt.cdc.gov/](http://www.bt.cdc.gov/)