

# RICIN

Ricin is a poison found naturally in castor beans. When the beans are processed, the left-over waste material forms ricin. Ricin can be in the form of a powder, mist, pellet, or dissolved in water or weak acid.

## HOW CAN RICIN BE PREPARED?

**Crude preparation:** Does not include processing and may be as simple as crushing a castor bean. This poses no danger of large-scale exposure and is unlikely to cause serious illness or death.

**Concentrated product:** Processed in some way. This poses a threat to those closely located to the ricin who are not wearing protective clothing. This does not pose a threat to the whole population.

**Highly refined product:** Most processed and lethal. This is very rare because it is labor- and technology-intensive to create. The large number of castor beans needed to create highly refined product would likely draw attention from law enforcement before the ricin was created.

## HOW CAN YOU BE EXPOSED?

*Ricin poisoning is rare. Death from ricin poisoning is even rarer.*

Unintentional ricin poisoning is highly unlikely, except through ingestion of castor beans. Intentional exposure could occur through the air, food, or water in the event of a bioterrorism attack.

Ricin poisoning is not contagious and cannot be spread from person-to-person through casual contact. However, if you touch ricin on someone's body or clothing, you could become exposed.

## SIGNS/SYMPTOMS OF RICIN EXPOSURE

### INGESTED

#### 6-12 hours

- Nausea
- Vomiting
- Abdominal pain

#### 12-24 hours

- Severe dehydration
- Kidney/liver problems

### INHALED

#### 4-6 hours

- Difficulty breathing
- Shortness of breath
- Chest tightness
- Cough

#### 12-24 hours

- Pulmonary edema (fluid in the lungs)
- Respiratory failure

Death from ricin poisoning can occur within 36-72 hours after exposure, depending on the how the person is exposed (inhaled, ingested, injected) and the dose received.

## HOW IS RICIN POISONING TREATED?

No antidote exists for ricin. Avoid exposure if at all possible. If exposed, get ricin off or out of the body as quickly as possible.

Victims are given supportive medical care to minimize effects of poisoning. Care could include helping victims breathe, fluids through an IV needle, medication to treat seizures and low blood pressure, flushing the stomach with activated charcoal (if ricin was ingested), or washing out their eyes.



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## PROTECT YOURSELF AFTER EXPOSURE

- Leave the area and get fresh air right away
- Follow emergency instructions. They may tell you to evacuate the area or “shelter in place” inside a building to avoid exposure
- If you think you have been exposed, remove your clothing, wash your entire body with soap and water, and seek medical care immediately
- If ricin has been ingested, do not induce vomiting or give fluids to drink
- Seek medical care immediately. Call 911

## MORE INFORMATION

 [preparedness.health.maryland.gov](http://preparedness.health.maryland.gov)

 [facebook.com/MarylandOPR](https://facebook.com/MarylandOPR)

 [twitter.com/MarylandOPR](https://twitter.com/MarylandOPR)

 [health.maryland.gov](http://health.maryland.gov)

 [facebook.com/MarylandDHMH](https://facebook.com/MarylandDHMH)

 [twitter.com/MDHealthDept](https://twitter.com/MDHealthDept)

*Information is from the Maryland Department of Health Office of Preparedness and Response and the Centers for Disease Control and Prevention.*

*<http://www.bt.cdc.gov/agent/ricin/facts.asp> and <http://www.bt.cdc.gov/agent/ricin/qa.asp>*



MARYLAND DEPARTMENT OF HEALTH  
Office of Preparedness  
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