



## ABRIN

### I. Protocol Overview

Abrin is a natural poison found in the seeds of the rosary pea or jequirity pea plant and is more poisonous than ricin. It is a stable substance and can be made into powder, a mist, a pellet, or dissolved in water. The seeds are highly colored and are drilled, strung, and used for jewelry. Intact seeds present little hazard, but drilled seeds are extremely toxic; skin rashes are found in persons wearing jequirity beans strings. Abrin may be used in cancer treatments.

Symptoms may occur within 8 hours of exposure or as late as 1 to 3 days. Inhalation typically leads to respiratory distress, fever, and cough followed by pulmonary edema, hypotension, and respiratory failure. Ingestion typically leads to profuse vomiting and diarrhea followed by multi-system organ failure. Other signs or symptoms may include hallucinations, seizures, and blood in the urine. Death can occur within 36 to 72 hours of exposure, depending on the exposure route and the dose received. Victims usually recover if death has not occurred in 3 to 5 days.

For all suspected chemical exposures, consult the Poison Control Center (800-222-1222) located at Children's Hospital of Philadelphia. Information and treatment advice is available to the public and healthcare professionals at no charge.

Mass spectrometry methods are used to detect the urinary biomarker L-abrine which shares a common plant source to the toxin. Samples are extracted and L-abrine is quantified via liquid chromatography (LC) separation followed by isotopic dilution mass spectrometry analysis (LC/MS/MS). ELISA (enzyme-linked immunosorbent assay) methods are used to detect abrin toxin in environmental and food samples.

The Delaware Public Health Laboratory does not perform this testing. Contact the CDC or the Poison Control Center.

### II. Contact Information

24/7 CDC Emergency Contact Number: 1-888-295-5156

Poison Control Center: 215-386-2100

### III. CDC Website:

<http://emergency.cdc.gov/agent/abrin/basics/facts.asp>

**24/7 Emergency Contact Number: 302-223-1520**

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