



## Emergency & Critical Care – Oleander Toxicity

<p><b>Why is Oleander Toxic?</b></p>	<p>There are three chemicals in the oleander plant that makes it dangerous: the cardiac glycoside nerioside, oleandroside, and oleandrin. People and animals can be poisoned by eating oleander leaves or petals. Consuming honey that has been made by bees that have gotten their nectar from the oleander plant can also cause poisoning.</p>
<p><b>Clinical Signs of Toxicity</b></p>	<p>Oleander has toxic effects on the gut and the heart. Signs noted after ingestion (1-24 hr) include abdominal pain, nausea, vomiting, salivation, and local irritation of the gums, as well as diarrhea. Gastritis from irritation caused by the plant may be severe and cause vomiting lasting for a day or more. Pulses may be slow and strong or rapid and weak and an ECG may demonstrate disturbances of conduction of the electrical impulses through the heart (ventricular arrhythmias, heart block possible) and may be severe enough to contribute to signs including ataxia, hypotension, shock, collapse, and death. Pupils may be dilated. Delirium may be followed by coma. Electrolyte abnormalities (hyperkalemia) may be seen on laboratory analysis.</p>
<p><b>Toxic Dose</b></p>	<p>Oleander is extremely toxic. There have been reports of livestock weighing over 1000 lbs dying from ingesting as little as 30 leaves. Even a few leaves falling into a small ornamental pool could poison a dog who lapped water from the pool. All parts of the plant are considered toxic with the seeds usually the most toxic, the leaves a little less and the flowers least, but still dangerous. Even the stems are dangerous and oleander branches should never be burned as the fumes can be toxic. The widely used ornamental bush comes in two species:                  --Nerium oleander, the common pink oleander and                  --Thevetia peruviana, the yellow oleander.                  Both species contain cardioactive glycosides, which are similar in effect to digitalis but much more toxic.</p>
<p><b>Treatment</b></p>	<p>Pets who may have ingested oleander should be seen by their veterinarian ASAP. Inducing emesis and administration of activated charcoal should be done immediately. IV fluids to counteract hypotension and help maintain hydration, along with close monitoring of the cardiac rate and rhythm should be initiated. Antiemetics are often times indicated. Medications to counteract cardiac effects (polyclonal antidigoxin FAB fragments or DigiTAB) are expensive but may be necessary.</p>
<p><b>Prognosis</b></p>	<p>Prognosis can vary. Often, even with emergency treatment, pets will die of oleander toxicity. Recovery can be as rapid as 24-48 hours but can take several days as long as supportive therapy is successful.</p>
<p><b>Questions?</b>  <b>Emergency &amp; Critical Care Experts:</b>  <b>Danielle Babski, Residency Trained in ECC</b>  <b>Heather Connally, MS, DVM, Diplomate ACVECC</b>  <b>Dimitri Brown, DVM</b>  <b>Christina Bejarano, DVM</b></p>	<p>The Veterinary specialty Center of Tucson has a board-certified critical care specialist, resident trained critical care specialist, and internship trained experienced emergency veterinarians available for questions and consultations on emergency conditions 7 days a week. Board-certified criticalists have four additional years of training and are certified by the American College of Veterinary Emergency and Critical Care to assure competency in their field.</p>