Plants of the Araceae Family (Plants Containing Oxalate Crystals and Histamine Releasers)  
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<table>
<thead>
<tr>
<th>Specific Agents</th>
<th>Major Species</th>
<th>Usual Time of Onset</th>
<th>Usual Duration (if survives)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jack-in-the-pulpit (Arisaema triphyllum)</td>
<td>Most species</td>
<td>Minutes to hours</td>
<td>Days; potentially lethal; poisoning is rare</td>
</tr>
<tr>
<td>Dumbcane (Dieffenbachia)</td>
<td>Dogs, cats</td>
<td>Minutes to hours</td>
<td>Days; potentially lethal</td>
</tr>
<tr>
<td>Philodendron (Philodendron spp.)</td>
<td>Dogs, cats</td>
<td>Minutes to hours</td>
<td>Days; potentially lethal</td>
</tr>
<tr>
<td>Elephant's ear (Colocasia spp.)</td>
<td>Dogs, cats</td>
<td>Minutes to hours</td>
<td>Days; potentially lethal</td>
</tr>
<tr>
<td>Alocasia (Alocasia spp.)</td>
<td>Dogs, cats</td>
<td>Minutes to hours</td>
<td>Days; potentially lethal</td>
</tr>
<tr>
<td>Split-leaf philodendron (Monstera deliciosa)</td>
<td>Dogs, cats</td>
<td>Minutes to hours</td>
<td>Days; potentially lethal</td>
</tr>
<tr>
<td>Wild calla (Calla)</td>
<td>Most species</td>
<td>Minutes to hours</td>
<td>Days; potentially lethal</td>
</tr>
<tr>
<td>Skunk cabbage (Symlocarpus)</td>
<td>Most species</td>
<td>Minutes to hours</td>
<td>Days; potentially lethal</td>
</tr>
<tr>
<td>Arrowhead plant (Syngonium)</td>
<td>Most species</td>
<td>Minutes to hours</td>
<td>Days; potentially lethal</td>
</tr>
<tr>
<td>Others</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Images - Alocasia antiquorum or Colocasia  
- Elephant's ear, Colocasia - Google Image Search. - To view this image in full size go to the IVIS website at www.ivis.org.

Images - Arisaema triphyllum  
- Jack in the pulpit, Arisaema triphyllum - Google Image Search. - To view this image in full size go to the IVIS website at www.ivis.org.
Description

A number of ornamental plants in the Family Araceae produce similar toxic signs that will be discussed as a group. A large array of ornamental plants fit into this category.

Toxic Principle

- All parts are usually poisonous, although the leaves may sometimes be devoid of toxin.
- Calcium oxalate crystals are felt to be one cause of the clinical signs. Recently toxicity has also been attributed to several proteolytic enzymes, which trigger the release of some potent kinins and histamines by the body. These kinins in turn cause several local reactions, which may be aggravated by the sharp calcium oxalate crystals contained in the plant tissues.
- Calcium oxalate crystals are thought to mechanically damage cells in the mouth during ingestion and may allow toxin to enter and create cellular havoc.
- It has been shown that dumbcane has specialized contractile cells that may actually propel the calcium oxalate crystal (rhabdites) into the tissue.

Signs

- Immediate evidence of pain and irritation upon chewing.
- Headshaking, intense salivation.
- Change in phonation.
- Swelling of the mucous membranes of the pharynx and tongue.
- Severe dyspnea may develop, but obstruction rarely develops.
- Nausea, vomiting, diarrhea, secondary dehydration, electrolyte imbalance and shock are possible.
- Very rarely - irregular heart beat, mydriasis, coma and death.

**Treatment**

- Signs usually abate within 2 - 4 hours after treatment, but may persist for several days.
- Rinse mouth.
- Activated charcoal.
- Oral calcium (e.g., milk) may be helpful in precipitating any soluble oxalates.
- Antihistamines.
- Symptomatic and supportive care.
- IV fluids if vomiting or diarrhea are persistent causing dehydration or shock.

*Caladium* - The large heart shaped leaves, the flowers enclosed in a tubular bract (upper left), and the dormant tuber (lower right).
Dumbcane (Dieffenbachia sp.) - An ornamental with large variegated leaves that only rarely produces flowers or fruits.
Philodendron - The leaves of these trailing or climbing vines are heart-shaped, variously colored, and pointed. The leaf of pothos, a similar climbing vine commercially called philodendron, is shown below.
Elephant's Ear (*Colocasia*) - Note the large leaf, shaped like an elephant's ear, and the scaly tuber of this large ornamental plant.
Jack-in-the-Pulpit (*Arisaema triphyllum*).