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Plants of the Araceae Family (Plants Containing Oxalate Crystals and Histamine Releasers) (9-

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Plants of the Araceae Family (Plants Containing Oxalate Crystals and Histamine Releasers)

Dieffenbachia spp. - Dumbcane

Philodendron spp. - *Philodendron* var. *cordatum*, horsehead, panela, red emerald, red princess

Monstera spp. - Ceriman; also known as split-leaf *Philodendron* or *monstera*, mother-in-law, Swiss cheese plant, hurricane plant, fruit salad plant, cutleaf philodendron, Mexican breadfruit

Alocasia antiquorum or *Colocasia* - Elephant's ear

Zantedeschia aethiopica - Calla lily; arum lily

Caladium spp. - Caladium, also called elephant's ear

Symplocarpus foetidus - Skunk cabbage

Calla palustris - Wild calla; water arum

Xanthosoma spp. - Malanga, caladium, elephant's ear

Epiprenum (Scindapsus) spp. - Devils ivy, golden pothos, marble queen, variegated philodendron, pathos, taro vine

Arisaema triphyllum - Jack in the pulpit

Arum maculatum - Cuckoo-Pint

Spathiphyllum clevelandii, *Spathiphyllum floribundum*, *Spathiphyllum wallisii* - Peace lily

Syngonium podophyllum - Arrowhead, syngonium

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

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 . -

Images - *Arum maculatum*

- Cuckoo-Pint, *Arum maculatum* - Google Image Search. - To view this image in full size go to the IVIS website at www.ivis.org . -

Images - *Caladium spp.*

- Elephant's ear, *Caladium* - Google Image Search. - To view this image in full size go to the IVIS website at www.ivis.org . -

Images - *Calla palustris*

- Elephant's ear, *Xanthosoma spp.* - Google Image Search. - To view this image in full size go to the IVIS website at www.ivis.org . -

Images - *Dieffenbachia spp.*

- Dumb cane, *Dieffenbachia* - Google Image Search. - To view this image in full size go to the IVIS website at www.ivis.org . -

Images - *Epiprenum (Scindapsus) spp.*

- *Epiprenum (Scindapsus) spp.* - Google Image Search. - To view this image in full size go to the IVIS website at www.ivis.org . -

Images - *Monstera spp.*

- Ceriman, *Monstera* - Google Image Search. - To view this image in full size go to the IVIS website at www.ivis.org . -

Images - *Philodendron spp.*

- *Philodendron var. cordatum* - Google Image Search. - To view this image in full size go to the IVIS website at www.ivis.org . -
- Red emerald, *Philodendron spp.* - Google Image Search. - To view this image in full size go to the IVIS website at www.ivis.org . -
- Red princess, *Philodendron spp.* - Google Image Search. - To view this image in full size go to the IVIS website at www.ivis.org . -

Images - *Spathiphyllum clevelandii, Spathiphyllum floribundum, Spathiphyllum wallisii*

- *Spathiphyllum clevelandii* - Google Image Search. - To view this image in full size go to the IVIS website at www.ivis.org . -
- *Spathiphyllum floribundum* - Google Image Search. - To view this image in full size go to the IVIS website at www.ivis.org . -
- *Spathiphyllum wallisii* - Google Image Search. - To view this image in full size go to the IVIS website at www.ivis.org . -

Images - *Symplocarpus foetidus*

- Skunk cabbage, *Symplocarpus foetidus* - Google Image Search. - To view this image in full size go to the IVIS website at www.ivis.org . -

Images - *Syngonium podophyllum*

- *Syngonium podophyllum* - Google Image Search. - To view this image in full size go to the IVIS website at www.ivis.org . -

Images - *Xanthosoma spp.*

- *Calla palustris* - Google Image Search. - To view this image in full size go to the IVIS website at www.ivis.org . -

Images - *Zantedeschia aethiopica*

- *Zantedeschia aethiopica* - 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.

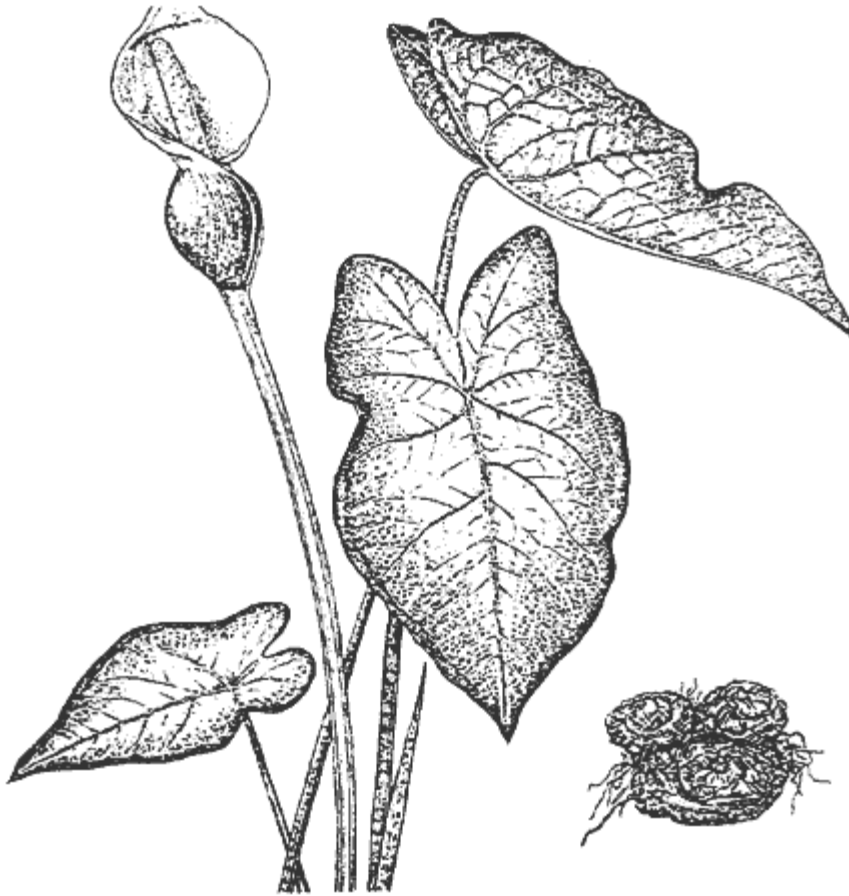
Signs

- 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.



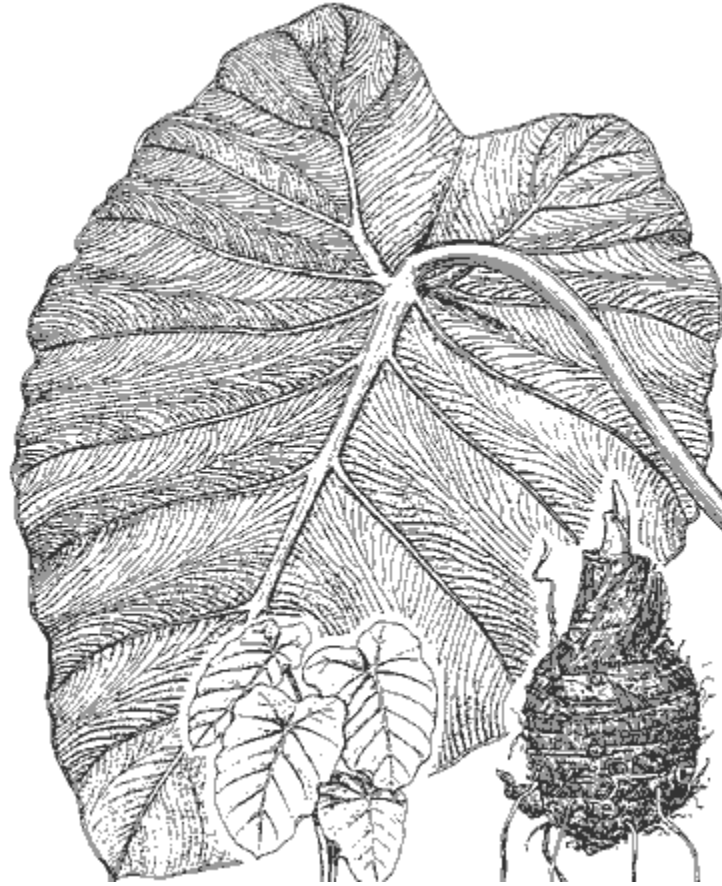
Caladium - The large heart shaped leaves, the flowers enclosed in a tubular bract (upper left), and the dormant tuber (lower right).



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*).

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