

# Propagating Houseplants

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Plant propagation is fun and easy in the home and is a good way to increase your number of plants inexpensively. Plants produced from cuttings will be identical to the parent plant, though there are a few exceptions.

Cuttings are severed parent parts that produce roots and/or stems to form a new and independent plant. Stems, leaves, or roots may be used. Equipment needed for rooting cuttings include a container, rooting medium, a sharp knife, a plastic bag, a source of plant material, and in some cases a rooting hormone. A rooting hormone is useful for encouraging rooting on difficult-to-root cuttings.

## Care of Cuttings

Cuttings should never be allowed to dry out during the cutting, rooting, or establishment phase of new plant development. The exception would be for some succulents and cacti. Adequate humidity in and around the container holding the cuttings and new plants will help reduce the risk of plant material drying out. Humidifiers can be used to raise the humidity in the room where cuttings are being grown for individual plants.

For individual containers, insert stakes or a wire hoop in the container away from the cuttings. Slip a plastic bag over the stakes or wire hoops and securely fasten the plastic to the sides of the container. This cover will allow humidity to remain in and around the cuttings. Avoid placing these covered containers in direct sun as the heat will be absorbed, rapidly raising the temperature inside the plastic and damaging the cuttings.

Several methods of propagating plants by cuttings can be used. All are intended to provide the cuttings with proper moisture and temperature conditions, just as with germinating seeds. Cuttings can be rooted in water, sand, perlite, or vermiculite. Some plants are easy to root in water, but perlite or vermiculite generally gives more satisfactory results.

Select cuttings from healthy plants. When taking cuttings, make all cuts clean and at an angle through the stem, making sure there is at least one node (joint) under the surface of the medium. Mixing an equal part of perlite with peat moss creates a quality medium in which to root plants. Avoid using field soil as a potting medium. The lack of pore space in the soil particles reduces travel of water and oxygen through the medium. Field soil can also harbor disease pathogens that can threaten the health of plant cuttings and new plants.

**Table I. List of common house plants and methods for propagating them. Some species (spp) may be propagated by more than one method.**

African Violet ( <i>Saintpaulia</i> spp)	Seeds; whole leaf cuttings; division
Aloe ( <i>Aloe</i> spp)	Division
Arrowhead ( <i>Syngonium</i> spp)	Root cuttings that include a leaf node
Bloodleaf or Beefsteak Plant ( <i>Iresine</i> spp)	Tip cuttings
Boston Fern ( <i>Nephrolepis exaltata bostoniensis</i> )	Division; runners
Bromeliad (Many types)	Division
Cactus (Many types)	Seeds; whole leaf cuttings
Caladium ( <i>Caladium</i> spp)	Division
Christmas Cactus ( <i>Zygocactus</i> spp)	Tip cuttings
Croton ( <i>Codiaeum</i> spp)	Seeds; tip cuttings; air layering
Devil's Backbone ( <i>Pedilanthus tithymaloides variegatus</i> )	Stem cuttings
Dracaena, Red-marginated ( <i>D. marginata</i> )	Stem cuttings; air layering; cane cuttings
Dracaena, Masange's ( <i>D. fragrans mauangeana</i> )	Stem cuttings; air layering; cane cuttings
Dracaena, Ribbon ( <i>D. sanderiana</i> )	Stem cuttings; air layering; cane cuttings
Dracaena, Gold Dust ( <i>D. godseffiana</i> )	Stem cuttings; air layering; cane cuttings
Dumbcane ( <i>Dieffenbachia</i> spp)	Tip cuttings; cane cuttings; air layering; division
English Ivy ( <i>Hedera helix</i> )	Leaf bud cuttings
False Aralia ( <i>Dizygotheca</i> spp)	Seeds; air layering; stem cuttings

Fittonia ( <i>Fittonia</i> spp)	Stem cuttings
Jade Plant ( <i>Crassula</i> spp)	Tip cuttings; stem cuttings
Kalanchoe, Christmas ( <i>K. blossfeldiana</i> )	Leaf cuttings; stem cuttings
Kalanchoe, Dwarf Purple ( <i>K. pumila</i> )	Leaf cuttings; stem cuttings
Kalanchoe, Panda Plant ( <i>K. tomentosa</i> )	Leaf cuttings; stem cuttings
Moses in the Cradle ( <i>Rhoea</i> spp)	Division; seeds
Peace Lily ( <i>Spathiphyllum wallisii</i> )	Division
Peperomia ( <i>Peperomia</i> spp)	Tip cuttings; whole leaf cuttings; leaf bud cuttings; division
Philodendron, Heartleaf ( <i>P. oxcardium</i> )	Stem cuttings
Philodendron, Splitleaf ( <i>P. pertusum</i> )	Stem cuttings; air layering
Pilea ( <i>Pilea</i> spp)	Stem cuttings; division
Prayer Plant ( <i>Marantha</i> spp)	Division
Rubber Plant ( <i>Ficus elastica</i> )	Air layering; seeds
Schefflera ( <i>Brassaia</i> spp)	Seeds; cuttings of half ripened stems
Snake Plant ( <i>Sansevieria</i> spp)	Leaf section cuttings; division
Spider Plant ( <i>Chlorophytum</i> spp)	Division; runners
Swedish Ivy ( <i>Plectranthus</i> spp)	Stem cuttings
Umbrella Plant ( <i>Cyperus</i> spp)	Seeds; division; upside down stem cuttings
Velvet Plant ( <i>Gynura</i> spp)	Tip cuttings; stem cuttings

Push the cuttings down in the medium about 1 inch. The medium should be moist but not soggy. Slip an airtight polyethylene bag over the cuttings and around the container. No further watering will be necessary. Place in a room at 60° to 70°F. Cuttings can be potted when they show an abundance of roots.

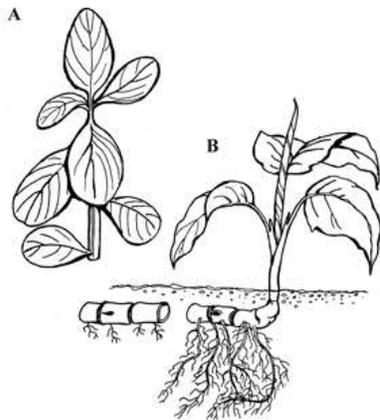
### Tip and Stem Cuttings

Tip cuttings (taken from the tip of plants) are used to propagate common house plants such as the velvet plant and jade plant. Tip cuttings generally are 3 to 5 inches long and are removed from the parent plant at a point just below a leaf (*Figure 1A*).

Swedish ivy, pilea, and fittonia can be propagated by stem cuttings (sections of stems with leaves attached). The cuttings should have three or four leaves for best rooting.

### Cane Cuttings

Cane cuttings are used for propagating dumbcane, Chinese evergreen, and similar plants that produce cane-like or leafless stems. Cut the cane into small pieces 2 to 3 inches long. Place the cuttings on their sides slightly below the surface of the rooting medium, such as perlite. A bud eventually will sprout and form a new stem when the cutting is rooted (*Figure 1B*).



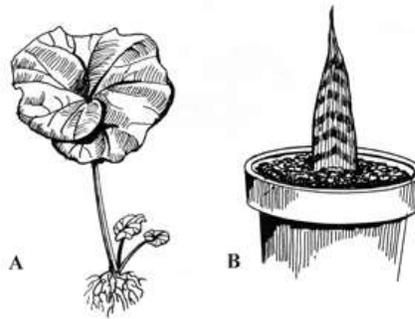
**Figure 1. Tip and stem cuttings (A), and cane cuttings (B).**

### Whole Leaf Cuttings

Whole leaf cuttings are prepared from leaves with or without their stalks (called petioles). Roots and leaves eventually will form at the base of the leaf (*Figure 2A*). Peperomia and African violets commonly are started by whole leaf cuttings.

## Leaf Section Cuttings

Leaf section cuttings can be used for propagating plants like the Rex begonia and snake plant. The leaves are cut into pieces, with the edge of the cuttings closest to the base of the parent plant inserted into the rooting medium (*Figure 2B*).



**Figure 2. Whole leaf cuttings (A) and leaf section cuttings (B).**

## Leaf Bud Cuttings

Leaf bud cuttings consist of a single leaf attached to a piece of 1- to 1½-inch stem. The dormant bud, located where the leaf stalk joins the stem, will give rise to a new shoot and branches (*Figure 3*). The cutting should be inserted in the rooting medium with the bud about one-half inch below the surface. English ivy easily is propagated by this method.

Cuttings from succulents or cactus should be allowed to dry for one to seven days, depending on species and size, before placing in a rooting medium. The drying period will cause the cut edges to callous. This will prevent the absorption of excessive amounts of moisture that could result in rotting.



**Figure 3. Leaf bud cuttings.**