



## House plants

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Plants bring natural beauty to our living spaces. By creating texture and balance, a room or patio can be transformed into an environment that comforts us. Much of the scenic beauty of nature has been replaced by densely populated areas that sprawl for miles from urban centers. This visual pollution affects us all and leaves us with a longing for a closer connection with nature. We spend about 90 per cent of our time indoors. The indoor environment is 5 to 10 times more polluted than the exterior.

House plants are an ideal way to create attractive and restful settings while enhancing our sense of well being. They refer to a group of ornamental foliage and flowering plants, normally grown in containers and used to decorate the house interiors, verandah, corridor, porch, stair, window sill etc., In addition, houseplants can be a satisfying hobby and can help purify the air in our homes. Indoor plants not only convert carbon dioxide to oxygen, but they also trap and absorb many pollutants. Many of these chemical compounds, which are released into our air through a process called “off-gassing,” come from everyday items present in our homes and offices.

Usually indoor plants are chosen for their ability to tolerate particular indoor conditions such as low light, high temperature, and low humidity. Plants that are able to grow well under these relatively adverse indoor environmental conditions make good indoor plants. If plants other than

these rugged types are to be grown indoors, the environment must be altered to meet their needs or they must be put in a microclimate that is suited to their requirements.

**History of house plants:** As far back as the time of the great pharaohs and the pyramids, the people of Ancient Egypt decorated their homes with plants. Displaying plants in containers was popular in Egyptian art. The Greeks and the Romans built their homes around a central atrium of containerized plants. And even though these plants were out in the open elements, this atrium was considered apart of the home. This was the fashion of such civilized societies. During the age of European discovery, the explorers who went to the New World found many new tropical treasures, many of which did not survive Europe’s climate, so they were brought indoors. For centuries curious explorers and botanists, called plant hunters, searched the tropics for new and exciting plants to bring back to Europe. Since there was no suitable climate for these new treasures, plant houses needed to be constructed. The first of these was called an orangerie, like the one built at Versailles in France that housed the citrus and palms of king Louis XIV over the winter. Later conservatories and greenhouses like we know them today were developed. During the Victorian Age, exotic plants become extremely popular, but the transport of them was very difficult because of the lack of warmth, rooting media,



and care on the ship ride home. On their long journeys, plants would become diseased or damaged and die until 1833, when Dr. Nathaniel Ward developed a glass case to transport the plants. These Wardian Cases were self sufficient on long journeys and became a fad in Europe for transporting exotic plants. Today we call these cases as terrariums. Also during this Victorian age, transition was in the air and technology changed the lives of the people. There was less free time in men's lives and the role of women changed in the home. Besides just taking care of the home, women chose horticulture as a hobby to become more active. This was at first just outdoor gardening, but there was a shift to gardening indoors in poor weather and the use of houseplants that we know today came into existence. This hobby took off and became extremely popular with both men and women and soon almost everyone had houseplants, especially in the cities. Before the 1940's the home environment was not suitable for tropical and subtropical plants, the popular foliage plants of today. After this time though, more precise control of indoor temperatures in both summer and winter greatly improved and there was no longer a need for conservatories and greenhouses to keep these plants over the winter.

#### Importance of house plants:

*Control the indoor humidity:* Plants release moisture vapor as part of the process of photosynthesis as well as its respiratory process. Because of this, it increases humidity of the air. Plants would release around 97 per cent of the water they take in. If we want to increase

humidity of a room, one can add more plants and put them together.

When humidity level is too low, individuals are more likely to develop viral infections; when humidity is too high, vulnerability to other disease may get increase. Plants tend to control humidity to within the optimum range for human health.

*Easier breathing:* When the plants undergo photosynthesis, they absorb carbon-di-oxide and release oxygen. This mean that there is increased oxygen levels when there are plants indoors. During night time, they absorb oxygen and release carbon-di-oxide. Hence, the plants which grown indoors would be placed outside during evening hours. But there are certain plants which could absorb carbon-di-oxide and release oxygen during night time. Those plants will be placed in the bed room to get a peaceful sleep; they are orchids, succulents and epiphytic bromeliads. As a result of which concentration and productivity of a person may get increase to 10-15 per cent.

*Clean and purify the indoor air:* With the modern climate-controlled and air-tight spaces what we have these days, it is easier to trap volatile organic compounds (VOCs) which may be harmful to our health. Adding plants to the home will help to lessen these harmful gases. NASA says that houseplants can remove 87 per cent of toxins from the air. These include gases like formaldehyde from in cigarette smoke, rugs, grocery bags and vinyl, benzene and trichloroethylene that are found in man-made fibres, solvent, sink and paint. Plants will absorb these gases and

Botanical name	Common name	Symptoms
<i>Dieffenbachia</i>	Dumb cane	Sap causes painful swelling of mouth and throat, as well as vocal loss if eaten
<i>Anthurium</i> species	Anthurium	Leaves cause severe burning in mouth and skin irritation
<i>Spathiphyllum</i>	Peace lily	Sap causes severe burning in mouth and skin irritation
<i>Syngonium podophyllum</i>	Arrowhead plant	Sap is toxic and can cause skin irritation
<i>Asparagus densiflorus</i>	Asparagus fern	Poisonous berries
<i>Epipremnum aureum</i>	Pothos or Devil's Ivy	Non-lethal, but causes burning sensation in mouth
<i>Monstera deliciosa</i>	Swiss cheese plant	Leaves cause severe burning in mouth if eaten
<i>Philodendron</i> species	Philodendron	Skin irritation
<i>Schefflera</i> species	Schefflera	can cause burning in mouth; skin irritation
<i>Zantedeschia</i> species	Calla lily	All parts are poisonous, especially rhizomes
<i>Chrysanthemum morifolium</i>	Chrysanthemum	Leaves are poisonous if eaten and cause skin irritation
<i>Codiaeum variegatum</i>	Croton	Poisonous sap
<i>Euphorbia milii</i>	Crown of thorns	Sap causes irritation in mouth and eyes
<i>Hedera helix</i>	English ivy	leaves are poisonous if eaten; sap can cause skin rash
<i>Cycas revoluta</i>	Sago palm	All parts are poisonous; the seeds contain the highest amount of toxin
<i>Zamioculcas zamiifolia</i>	ZZ plant	All parts are poisonous

pull these contaminants into the soil.

**Reduce stress :** Plants can calm the heart rate and lower blood pressure. It can also reduce muscle tension that is related to stress. It could also decrease headaches, fatigue, sore throats, colds, coughs and flu-like symptoms. It has a great impact to improve the health of human being. House plants make us feel comfortable and will even influence us to feel positive.

**Sharpen focus and creativity:** Studies show that when plants are placed in an indoor space, may be it a home, office, class room or in workplaces, there is an observed increase in productivity as a result of being able to focus on work. People also tend to be more creative because of having greens in the home.

**Reduce noise pollution:** It helps to reduce noise pollution. This happens basically because its stems, leaves, branches, wood and other parts absorb sound.

**Sets higher mood levels :** A home with more plants tends to be happier with less stress and fatigue. An environment with plants make the people would really be happy and cheerful because they would feel better in terms of health and the aura with plants around.

**Soften the look :** Adding plants will create a contrast to hard surfaces. That is why; mostly the interior designing is concentrated by placing plants near the brick walls or sharp corners. Making the area appear softer will result into a more comfortable feeling and well-being in the spaces.

**Improved aesthetics:** Be creative while choosing plants for indoors. Placing right plants for the right place is most important.

**Other benefits of interior plants:**

- Increased positive feelings and reduced feelings of anxiety, anger and sadness.

- Reduction of sound levels
- Reduction of stress levels
- Control of humidity to the within the optimum levels for human health
- Cooling effect
- Absorption of carbon dioxide and emission of oxygen refreshing the air
- Improved concentration levels leading to improved productivity particularly with those working with computers
- Reduction of absenteeism in the workplace
- Faster recovery from mental tiredness
- Interiors feel spacious, looked after and clean
- People prefer to occupy rooms that contain plants
- Improved image - interiors are perceived as “more expensive”.

**Poisonous house plants:** Though house plants is blessed with several advantages, some of them are proved to be more beneficial in addition to its poisonous nature by causing illness if eaten and others can cause skin irritation and should be handled with caution.

Children are unlikely to eat house plants, but some brightly colored fruit may seem tempting. Pet animals like Cats and some dogs may play with or chew on plants. The toxic sap in poisonous house plants tastes extremely bitter and can cause a burning sensation in the mouth, so a pet is unlikely to play with them long.

Hence, caution should be taken while pruning or repotting these poisonous house plants by keeping hands away from eyes and mouth and to wash the hands thoroughly afterwards. It's better to wear gloves while handling or avoiding the following poisonous plants in home where children and pets are present.

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