

Indoor Plants That Improves Air Qualities

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The plants is the lungs of the earth. Today, air pollution is the major modern problems in the society. It's also affecting billions of peoples and environment. There is more numbers of plants in the earth but certain numbers of plants only used for the improving air quality of indoor environmental conditions. The air pollutants are one of the world's greatest public health risks. The united nation development program estimated in 1998 that over 2 millions human die each year due to the persistence of deleterious indoor air. The chemical from building materials, household products, furniture and even air fresheners can make the indoor air toxic. Some of the plants play weapons in fight against the indoor air pollution. Growing of indoor plants also gives a beauty to the house and reduces the toxic air in the house. For a healthy life of human is to grow plants indoor to reduce the toxicity of air and also giving more amount of oxygen to the humans. Some of the plants not only enhance the aesthetic value of interiors but also contribute to better humidity, regulation, oxygen production, pyscological well-being. Certain indoor plants, along with the microorganisms present in their root zone, were capable of absorbing and reducing airborne toxins, thereby improving air quality. According to NASA findings, plants such as aglaonema, anthurium, calathea, sipder plant, dieffenbachia, money plants, ferns, peace lily, zz plants were especially effective in purifying indoor air.

List of indoor plants

S.No.	Scientific name and Details	English name	Family	Images
1.	<i>Aglaonema crispum</i> Aglaonema is the evergreen perennial herbs. The inflorescence is spadix bears unisexual flowers. The aglaonema removing chemicals like formaldehyde, xylene, benzene or other toxins.	Chinese evergreen	Araceae	
2.	<i>Anthurium andraeanum</i> Anthurium is one of the perennial plants, it loves the warm, shady and humid climates. According to NASA clean air study, Anthurium is used to remove the formaldehyde, xylene, toluene, and ammonia from the air.	Painter's palette	Araceae	
3.	<i>Calathea makoyana</i> Calathea is the evergreen plant and perennial rhizomatous plants. The upper surface of the leaf is dark green blotches along with veins. The lower surface of the leaf is coloured deep purple. Calathea is help to reduce toxins in air.	Peacock plant	Marantaceae	

4.	<i>Chlorophytum comosum</i> The spider plant also the perennial flowering plants and also it have tuberous roots. It gives a white colour flowers are produced in long branched inflorescence. Spider plant is very popular garden plants. Weekly once watering is enough for this plant. It removes the toxic air in indoor condition.	Spider Plant	Asparagaceae	
5.	<i>Dieffenbachia picta</i> Dumb cane is the perennial herbaceous plants and it has straight stem, alternate leaves with white spots. Dumb cane is best example of tolerance of shade. It has a larger area of leaf that helps to remove the air in the indoor spaces. And also it is the low maintenance plant. Dumb cane help to remove the volatile airborne pollutants, chemical vapors etc.,	Dumb-cane	Araceae	
6.	<i>Epipremnum aureum</i> Money plant is the most common indoor plants, it can grown in the both indoor and outdoor. And also survive in both water and soil media. It has heart shape leaves. Money plant act as a anti-pollutant plants againsts basic pollutants like benzene, formaldehyde and carbon monoxide.	Golden pothos	Araceae	
7.	<i>Nephrolepis exaltata</i> Ferns are the oldest group of plants. These are the evergreen perennial herbaceous plants. It loves moist shady locations. Boston ferns require frequent watering. It removes air pollutant like formaldehyde, xylene, and humidity of indoor environment.	Boston fern	Nephrolepidaceae	
8.	<i>Spathiphyllum cochlearispathum</i> Peace lily is the evergreen plant. It has beautiful white colour flower, and the flower is half shaped bloom on his long stem. It can survive in both water and indoor media (coco peat, compost, perlite, etc.,). Peace lily removes the pollutants like benzene, toluene, xylene, ammonia, trichloroethylene and formaldehyde are successfully filter out.	Peace lily	Araceae	
9.	<i>Zamia furfuracea</i> ZZ plant is the best example for the indoor plants. It is a perennial ornamental plant. It is the low maintenance plant, and weekly once watering is enough for the plants. It is help to remove the volatile compounds in the indoor environment.	Cardboard palm	Araceae	

Data of nine indoor plants given NASA

S. No.	Indoor plants	Formaldehyde removal amount	Xylene removal amount	Anion generation	Relative humidity increase	Limonene content	Carbon monoxide removal amount
1.	<i>Aglaonema crispum</i>	1.56	17.7	391	17.8	8.8	6.8

2.	<i>Anthurium andraeanum</i>	2.44	12.2	91	24.4	7.6	7.9
3.	<i>Calathea makoyana</i>	0.58	1.8	806	7.0	4.4	4.2
4.	<i>Chlorophytum comosum</i>	2.5	12.5	33	22.9	5.1	6.2
5.	<i>Dieffenbachia picta</i>	2.48	4.2	530	7.3	4.6	5.0
6.	<i>Epipremnum aureum</i>	0.88	2.8	507	7.2	6.2	9.3
7.	<i>Nephrolepis exaltata</i>	1.08	3.4	248	7.6	2.2	3.8
8.	<i>Spathiphyllum cochlearispat hum</i>	6.74	14.2	32	4.5	7.5	5.7
9.	<i>Zamia furfuracea</i>	2.64	12.0	30	4.2	6.6	4.3

Conclusion

The indoor plants are valuable components of interior environments due to their ability to improves aesthetic appeal, enhance psychological well-being, and contribute to better indoor air quality. The NASA clean air study demonstrated that certain indoor plants can help to reduce harmful airborne pollutants such as benzene, formaldehyde, and trichloroethylene in enclosed spaces. Although plants alone may not completely purify indoor air under normal living conditions, they still play an important role in creating healthier and more comfortable environments. In additions to air purification indoor plants help to maintains humidity, increase oxygen levels, reduce stress, and improve overall human productivity and well-being. Therefore, the uses of indoor plants can be considered an eco-friendly and sustainable approach to improving indoor environmental quality in homes, offices, and public spaces.

References

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