

How to Purify the Air Using Plants

Edited by [Flickety](#) and [13 others](#)

Article



While an air purifier can do some of the work of making the air around you at home or work a little fresher and purer, plants can do a much better job of filtering the air than a machine, plus they do it more quietly and without using up energy from your power plant. And they are pleasant to look at and provide us with a sense of nature close to us each day. Why not give them a try and see if you can sense the benefits?

Understand the importance of purifying indoor air with plant filters. [Indoor air](#) is some of the worst air we breathe on a daily basis because it is inside that everything builds up from the off-gassing of chemicals in many of our products.^[1] We are exposed to a range of indoor air contaminants daily, including, smoke, toxins, chemicals off-gassing, pesticides, detergent fumes, mold, small fibres, bacteria etc. While cleaning takes care of some of it (provided we take care what we clean with), it cannot take care of many of the air contaminants. However, in a NASA study it was found that "houseplants can purify and revitalize air in our homes and offices, protecting us from the negative effects of such common toxins as ammonia, formaldehyde, and benzene."

Understand how plants help us. Plants act as filters because they absorb the toxins through their leaves, especially those with the largest leaves. The theory is that if the plants do the absorbing first, our nose and lungs take on less of a burden. That means reduced incidence of [asthma](#), allergies, reactions to mold and other particles, and immuno-suppressed illnesses.

Decide where you have room to place plants. It will need to be somewhere that you can access easily and where you can have the odd water spill without it being too devastating. Desks, floors, window sills and special plant stands are all good places that are commonly chosen.

Think about which rooms could do with having plants purifying the air. Usually bedrooms are an excellent place for plants as they convert carbon dioxide into oxygen. Consider rooms that are heavily laden with electrical equipment, such as studies and TV rooms, and areas that have high fume potential, such as the [kitchen](#) and art workshops, etc. All offices can benefit from the addition of plants.


Select your plants according to their benefits. Use larger leafed varieties where possible. Some of the best plants are considered to be a "top 10".^[2] They are:

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1. Areca palm
 2. Reed palm
 3. Dwarf date palm
 4. Boston fern
 5. Janet Craig dracaena - breaks down benzene, carbon monoxide and trichloroethylene
 6. English ivy - breaks down benzene and trichloroethylene
 7. Australian sword fern
 8. Peace Lily - breaks down benzene and trichloroethylene
 9. Rubber plant - good for filtering a range of nasties, such as formaldehyde, benzene and ammonia.
 10. Weeping fig

Consider some other great plants as well:



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Snake plants - these plants are amazing growers and very resilient. They are great at removing most toxins and they are happy to grow where other plants might wither and die (such as a hot windowsill, for example). They are also good bathroom and dark space plants.

- [Christmas cactus](#) - here is a plant that does well in rooms that are darkened in the evening, such as the DVD and game zones.
- Spider plant - great for removing formaldehyde, carbon monoxide
- Bamboo palm - another good formaldehyde remover, as well as carbon monoxide^[3]
- Gerbera daisy - removes trichloroethylene

Keep the plants in good shape and make sure you have enough. The NASA study suggested that there be a 6 inch plant for each 100 square feet of interior space.^[4] And naturally, the plants that work best are those in top health themselves, so keep them well watered and fertilized.
