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NASA's Top 10 Air-Cleaning Plants

Quite often we see technology created for space used back on Earth. This is the case with NASA's Clean Air Study. The research was originally designed to optimise clean air in space stations. As part of this research, NASA scientists specifically looked at air filtering plants.

As we all know, plants absorb carbon dioxide and release oxygen, but some plants also remove toxic substances, such as trichloroethylene, formaldehyde and benzene. These toxins are associated with 'sick building syndrome'.

What pollutants are in the air?

There are several different pollutants in the air, these three are the most toxic:

Trichloroethylene - Found in printing inks, solvents, paints, lacquers, varnishes, adhesives, paint remover/stripper.

Formaldehyde - Found in paper bags, facial tissues, paper towels, table napkins, plywood panelling, and synthetic fabric.

Benzene - Used to make plastics, rubber lubricants, dyes, drugs and pesticides, found in tobacco smoke and glue, furniture wax and paint.

What are the effects of air pollutants on humans?

Trichloroethylene - Can cause dizziness, excitement, headache, nausea, sickness, followed by drowsiness and coma.

Formaldehyde - Short term exposure can cause nose irritation, mouth and throat, in some cases can cause damage to lungs and larynx.

Benzene - Short term exposure can cause irritation to eyes, drowsiness, dizziness, increase in heart rate, headaches, confusion, and in some cases result in unconsciousness.

As a result of its research, NASA compiled a list of the top air-filtering plants in 1989, in association with the Associated Landscape Contractors of America.

NASA's Top 10 List of Air Filtering Plants

1. **Aloe (Aloe Vera)** - Everyone can grow an aloe vera, just place it in a sunny spot and watch it thrive. It will help to filter out toxins such as formaldehyde and benzene.
2. **Azalea (Rhododendron simsii)** - Another good plant in order to keep formaldehyde at bay is azalea. It has beautiful blooms that do best in cooler areas.
3. **Chrysanthemum (Chrysanthemum morifolium)** - The flowers from this plant help to combat the harmful toxins of benzene. This plant likes direct sun and a draught, so place near a sunny, open window.
4. **English ivy (Hedera helix)** - This ivy has been shown to reduce fecal-matter particles in the air. Very easy to grow, just keep watered regularly.
5. **Gerber daisy (Gerbera jamesonii)** - Good at removing trichloroethylene, it can also remove benzene. This plant needs lots of light.
6. **Peace lily (Spathiphyllum)** - One of NASA's best performers as it removes three of the worst toxins - formaldehyde, benzene and trichloroethylene, and also combats toluene and xylene.
7. **Red-edged dracaena (Dracaena marginata)** - Another good performer, this plant can remove xylene, trichloroethylene and formaldehyde.
8. **Snake plant (Sansevieria trifasciata 'Laurentii')** - This plant is great for filtering out formaldehyde. It needs humidity and low light, making it perfect for bathrooms.
9. **Spider plant (Chlorophytum comosum)** - This resilient plant is a good remover of benzene, formaldehyde, carbon monoxide and xylene. And it is safe for pets.
10. **Weeping fig (Ficus benjamina)** - Pop a weeping fig in your living room and you will help to remove all the toxins brought in that typically lie in carpets, furniture and cleaning products, such as formaldehyde, benzene and trichloroethylene.

Now you know your plants, NASA researchers suggest that for efficient air cleaning, place at least one air filtering plant per 100 square feet of home or office space.

If you'd like to read more about the clean air directive, please see the following article: [Everything You Need to Know about Changes to the Clean Air Directive](#).

Image Source: Leafy Plants