



STEM ACADEMY OF THE ORANGES 445 SCOTLAND ROAD SOUTH ORANGE, NJ 07079

The Green Team **Presents:**

How to Improve the **Air Quality in Your Home and Reduce Ground Level Ozone**

Indoor Air Pollution and You

The average American spends 87% of their time indoors. Protect yourself!

Background

Air pollutants can range from contaminants brought in from the outdoors by your pets to dangerous gas leaks. Carbon monoxide is a common air pollutant resulting from natural gas that escapes into your home without being burned off. Older homes may contain asbestos and lead particles, which can be damaging to the lungs when released into the air. In bathrooms and kitchens, mold and mildew can become a nuisance where moisture levels are typically higher than in the rest of your house. Below are five strategies you can use to improve indoor air guality.

USE COOKING VENTS

Many indoor air pollutants come from the kitchen. Gas stoves release harmful contaminants, including carbon monoxide and nitrogen dioxide. Even electric burners produce those same pollutants in lower levels, as well as other particles that can be easily absorbed into your bloodstream. So, when you're cooking, be sure to turn on your kitchen vents, or open a window to help filter out the air even more.

KEEP YOUR RUGS AND CARPETS CLEAN

Rugs and carpets do more than increase the comfort of your home. They act as their own air filters, trapping dust and other particles in their many fibers. Clean your carpets and rugs weekly and they will keep working for you, improving the air quality in your home just by lying there!

CHANGE YOUR AIR **FILTERS**

Your AC filter isn't the only thing working to keep the air clean in your home environment. If you really want to improve the air quality in your home, be sure to check the filters in your other household appliances. Your vacuum cleaner, clothes dryer and kitchen vents should all be inspected and maintained periodically. It's recommended to clean or replace these common household filters every few months.

CONTROL HUMIDITY IN YOUR HOME

Humid and moist conditions breed mold and mildew that can trigger respiratory issues like allergies and asthma. Depending on your location, the hot summer months can bring about especially humid conditions. Reduce the amount of moisture in the air and curb the growth of irritating molds with a few well-placed dehumidifiers. There are a variety of humidifier options that will help maintain consistent humidity levels and create comfortable living conditions in your home.

BUY INDOOR PLANTS TO FRESHEN THE AIR

Plants are nature's natural air filters. Buying a few indoor plants can do wonders to improve the indoor air quality in your home, while enhancing your home décor. Small plants like ferns and lilies (which bloom indoors) and larger palm trees are the best options to pull contaminants out of the air.

thought Ozone was good thing. a

It is, but only when it's located in earth's upper atmosphere, where it shield the planet's surface from sun's harmful ultraviolet light. Closer to ground level, $ozone (O_3)$, a colorless, odorless gas, is formed pollution produced by cars, air leaning, gas stations, airplanes, powerplants, and factories.

What is Ozone Pollution?

Gases called nitrogen oxides (NOx) and Volatile Organic Compounds (VOCs) react to form ground level ozone in the presence of heat and sunlight. We breath this in with every breath. YUCK!

What are the main sources of Ozone Pollution?

- Mobile Exhaust: from cars, trucks, trains, and aircrafts.
- - Fuel Combustion: burning of oil, natural gas, wood, and coal from home heating systems.
 - Solvents: chemicals used in dissolving other substances such as surface coatings, dry cleaning, degreasing, and customer household products.

How can we decrease Ground Level Ozone?

- > Limit driving and idling: carpool, combine errands, use public transportation, ride a bike, walk.
- Keep your vehicle maintained, including keeping tires properly inflated. \geq
- Maintain yard equipment, including changing the oil and preplacing filters regularly. Consider using tools without motors.
- Don't burn yard waste. \succ
 - Use paint and cleaning products with fewer or no volatile organic compounds.

• Industrial: Oil and Gas productions, cement manufacturing, petroleum refineries, mining.