# CLEAN AIR AT HOME



## CONTRIBUTING TO A WORLD OF CLEAN AIR

At IKEA, we aim to have a positive impact on people and the planet. We work in various ways to empower everyone we are in touch with to live a better, healthier life at home. Air pollution has become the single greatest environmental health threat of our time. Therefore, one of our priorities is to help people everywhere access clean air.

According to the World Health Organization, polluted air is a leading cause of heart disease, stroke, respiratory disease and cancer. About 90% of people worldwide breathe polluted air every day and millions of people die prematurely each year due to indoor and outdoor air pollution.

In our research on clean air, we've discovered that most of us underestimate the threat of air pollution because we can't see or smell it.

#### AIR POLLUTION AT HOME

There is a general misconception that air pollution mainly happens outdoors, and that our home is a safe haven. In fact, there are many small everyday activities such as burning your toast that can expose us to as much pollution as standing at a busy road junction.

This is particularly important to realize, as most of us spend the best part of our life in our home. Children and the elderly are the most vulnerable, as air pollution not only damages our lungs but also has a negative effect on brain development and can cause heart disease.

It is easy to get overwhelmed by something that feels this difficult to combat. We have therefore put together a practical and straight forward guide, which highlights some easy and affordable choices and behavioural changes you can make to breathe cleaner air at home.

#### STEP-BY-STEP GUIDE TO CLEANER AIR



It is always a good idea to familiarise yourself with the terminology and the most common pollutants:

#### **NEED-TO-KNOW POLLUTANTS IN THE HOME**

#### **Particulate Matter (PM)**

The indoor pollutant that is considered most harmful to human health is particulate matter (PM). These are small solid particles in the air, like dust, or particles that are emitted from cooking or heating with solid fuels like wood. The smallest particles pose the most serious risk because they can pass through the body's defenses and damage the heart, brain and lungs.

#### Carbon monoxide (CO) and nitrogen oxides (NOx)

Found in the fumes of any type of combustion, for instance fumes from stoves and open fires. These gases can irritate the lungs and at high concentrations carbon monoxide can be fatal.

#### **Volatile organic compounds (VOCs)**

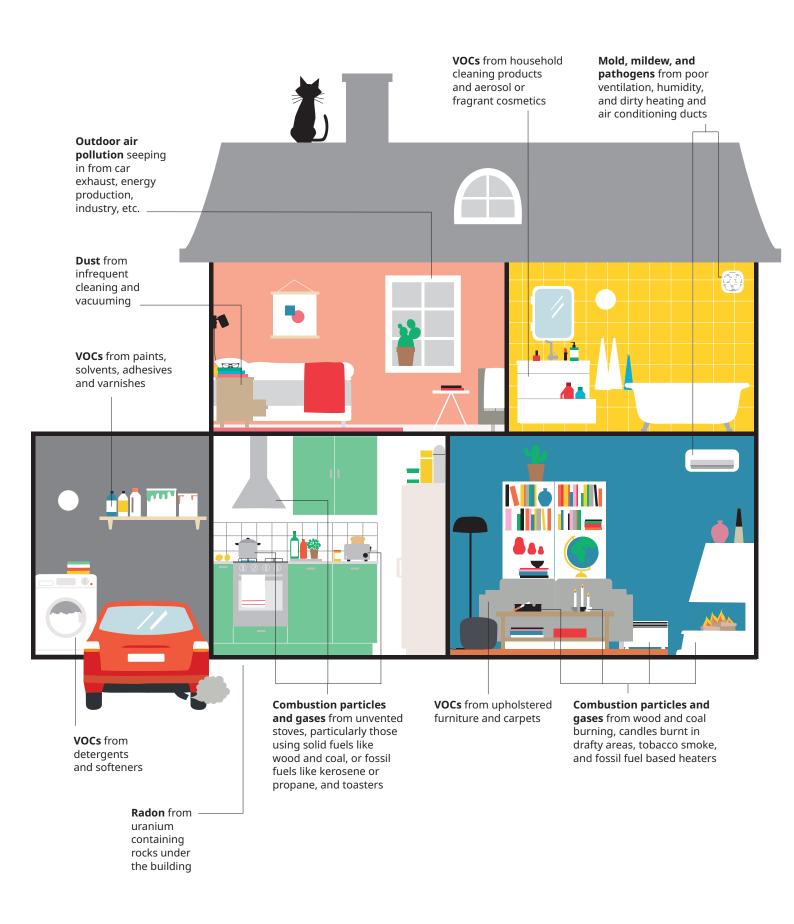
Present in everyday products such as household cleaning products, sprays, air fresheners, softeners, paints and adhesives. VOCs start off as solid or liquid but evaporate into the air and have been linked to headaches, dizziness, memory loss, eye and respiratory irritation. Some VOCs have been linked to cancer at high exposure levels.



Try to get an overview of the pollutants in your home. There is plenty you can do to assess your air quality even without measuring the exact pollution level. In the image below, you'll find an overview which allows you to go through your home room by room and identify where some of the most common sources of indoor air pollution originate. From that, you can assess which types of air pollutants are likely to be present in your home.

#### **COMMON SOURCES OF AIR POLLUTION IN HOMES**

Each home has its own individual mix of indoor pollutants, depending on lifestyle, climate, architecture etc. The image below shows some common sources of residential indoor air pollution.





Once you have assessed the air quality in your home, we have listed a wide range of practical solutions to help you cut or eliminate the different types of air pollution you may have identified.

#### WHAT CAN I DO?

#### HOUSEHOLD GOODS AND PRODUCTS

How much do you know about the chemicals and pollutants in your products?

- Buy from companies that have sustainability strategies and prioritize health and safety.
- Choose low- or no-emitting products for your home. Everything from upholstered furniture and fragrances to cleaning products emit chemicals, some more harmful than others. By choosing low- or no-emitting products you can reduce your exposure to volatile organic compounds. Look for water-based alternatives for paints, solvents and other products, which often contain fewer emitting ingredients.

#### **CLEANING**

To have clean air, you need a clean home.

- Use cleaning products free from harsh chemicals and fragrances. Use a product only as strong as needed for regular cleaning, use mild products, and only seek out stronger products for occasional deep cleans or stubborn stains. You can even make your own cleaning products with natural ingredients such as vinegar and baking soda.
- Ventilate your home during and after the use of cleaning products. Open windows during hours when outdoor air pollution is low, which is often at night.
- Keep your home free of dust and mould. Use storage solutions and minimize clutter to reduce dust collecting surfaces. Vacuum frequently, particularly carpets, which can accumulate pollutants.

#### COOKING

Healthy living is not just about what foods you eat, it's also about how you cook your food.

- The best way to cook food without impacting your air quality is to use an induction hob. Cooking with solid fuels like wood and charcoal is one of the biggest causes of indoor air pollution.
- Whatever cooking method you have available, be sure to use an exhaust hood and ventilate the room during and after cooking. Frying foods and using a toaster can emit combustion particles. Place toasters under the exhaust fan while in use, and place frying pans as far back on the stove as possible.

#### **CHANGE YOUR ROUTINES**

Small changes can add up to a big change in your home air quality.

- Do not smoke. Residual particles and gases from cigarette and tobacco smoke settle in rooms with fabrics or carpeting. Second hand smoke can be equally dangerous.
- Unless you live in a highly polluted area, make it part of your routine to air your home by opening windows when the outside air quality is best, which is often at night.
- Fireplaces can make for a cosy atmosphere, but cause a lot of particle pollution. If you use a fireplace, make sure to ventilate to minimize the amount of smoke and soot inside.
- If you burn candles, keep them away from drafty areas, and buy from companies that prioritize health and safety. Burning candles near air vents, fans, or open windows will cause your candle to soot, emitting unsafe particles into the air.

#### **CLEAN AIR TOOLS**

There are many affordable solutions to help you monitor and improve the air quality in your home.

- Monitoring, sensing and testing is available for several common pollutants. For example, you can install a carbon monoxide detector, or have your home tested for radon.
- If you live in a climate with very high humidity, you can use a dehumidifier. This is particularly important in older, damp houses, where moisture can lead to mould growth.
- Consider buying an air cleaning solution, like filters or an air purifier particularly if you live in a highly polluted area. These can be portable purifiers, or set up in central air and ventilation systems. Either way, make sure to choose high-efficiency filters and purifier capacities appropriate for the room size and the relevant type of pollution. Keep the filters clean and replace them as needed.

#### THE STRUCTURAL ENVIRONMENT

Depending on your living arrangement, you may or may not have much control over the building materials used in your home, ventilation systems, or major refurbishment projects. However, there are many low-cost and accessible solutions to improve your home air.

- Weather stripping and caulk are an inexpensive way to block out air leaks. This can prevent outdoor air pollution from seeping inside the home. Check the areas aroun door and window frames, electrical outlets, baseboards, key holes, letterboxes, vents and pipes for gaps and cracks.
- Exhaust fans should be used in kitchens and bathrooms to remove moisture and emissions from combustion cooking. Make sure the exhausts are vented outdoors.
- Remove any mould damage or growth, and fix leaks that allow moisture to build up indoors.
- During any home-improvement projects, especially when sanding, cutting or painting, wear appropriate protective equipment such as a face mask, and ventilate well.

- Learn about your local air quality. Check your local Air Quality Index to find out about the quality of the air you breathe, and any high pollution periods predicted. This will also help you make good choices about when to open your windows to ventilate the air inside your home, and when to leave them shut.
- Talk to your politicians about the importance of clean air. 9 out of 10 people worldwide live in areas where the World Health Organization guidelines for air quality are not met. Tell your politicians to enforce international air quality guidelines. Advocate for infrastructure and legislation that lead to better outdoor air quality, like public transportation systems, and pollution limits on industry.
- Reduce your energy usage and switch to renewables. Energy production and use is the one of the biggest sources of outdoor air pollution. Reducing your energy consumption is good for the climate, too!
- Reduce your air pollution from transportation. Vehicles are a major source of outdoor air pollution, and the emissions are often in highly populated areas where they effect a lot of people. Use zero-emission transport like walking or taking a bike, or use public transport instead of a car.
- Take care of your things. Manufacturing new things releases a lot of pollutants. Extend the life of your products with care, repair, upgrading and refurbishment.

### All IKEA customers have the right to healthy products that do not compromise the clean air in their homes.

Our product specifications include strict limits on emissions of chemicals that cause indoor air pollution. We've phased out chemicals that are suspected of being harmful or causing allergic reactions.

For example, the IKEA limit for formaldehydes is well below the European limit level for individual wood-based materials. Our vision is that formaldehyde emission levels in wood based products will be reduced to the same level as natural wood.

IKEA has also banned the use of so-called CMR-substances, which may cause cancer, mutation or are toxic to reproduction.