MOTHERS & OTHERS FOR CLEAN AIR

HEALTHY INDOOR BREATHING TOOLKIT

STOVES

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GAS STOVES

THE PROBLEM

Gas and wood-burning stoves release harmful combustion pollutants, including carbon monoxide, nitrogen dioxide, and particulates.

Exposure, especially from cook stoves and open fires, primarily affects women and children and causes about 4 million early deaths globally each year.

CARBON MONOXIDE (CO)

Carbon monoxide (CO) is a colorless, odorless gas from gas stoves. High exposure can cause dizziness, headaches, nausea, chest pain, heart disease, and even death. Long-term low exposure increases the risk of heart disease, low birth weight, and flu-like symptoms.

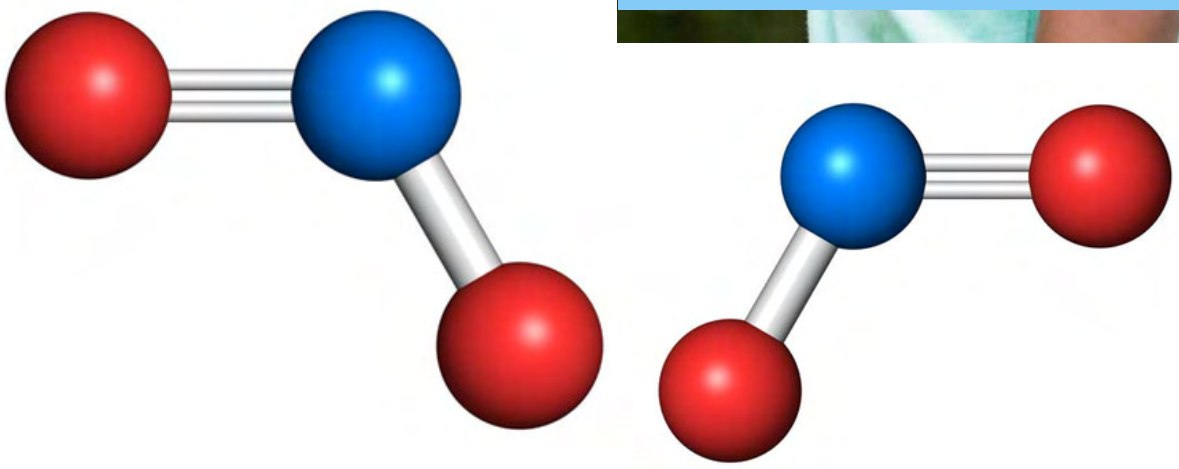
Improperly adjusted gas stoves can cause your home to have over three times the safe levels of carbon monoxide (California air standards limit CO to 9 ppm for 8 hours of exposure, while badly adjusted stoves can result in 30 ppm).

NITROGEN DIOXIDE

Nitrogen Dioxide is a gas released from gas stoves which is irritating to the eyes, nose, and throat. Consistent low exposure to nitrogen dioxide may increase the risk of lung disease, respiratory infection, asthma, and can damage lung growth in teens. High levels of exposure results in dizziness or shortness of breath. Exposure to nitrogen dioxide is especially harmful to children already suffering from asthma and other respiratory diseases. It is also connected to reduced cognitive performance, especially in children.

The EPA has no indoor pollution standards for nitrogen dioxide (the World Health Organization standard is 106 ppb), so being extra cautious and opening windows while you cook is important to avoid harmful levels of nitrogen dioxide.

A child with asthma



Nitrogen Dioxide

PARTICULATES

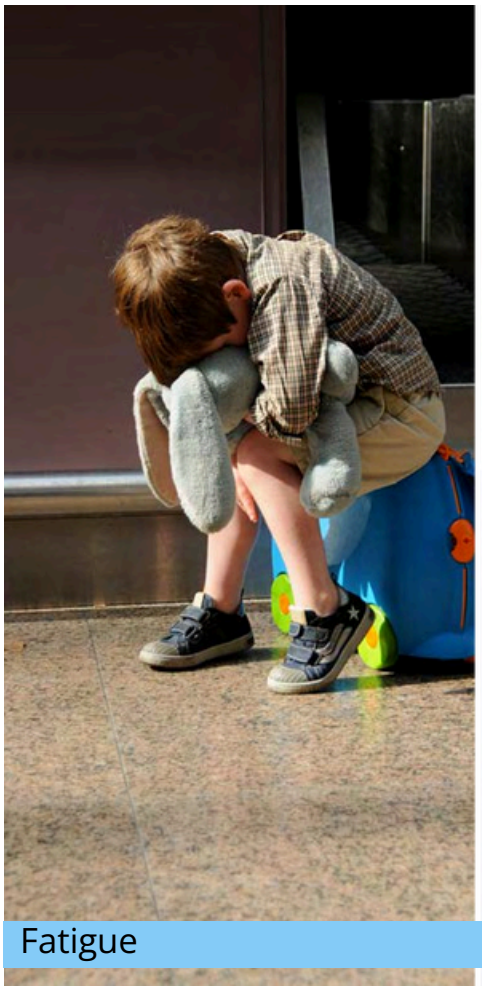
Particulates are released when fuel is incompletely burned and from cooking itself. The particles emitted into the air contribute to indoor air pollution. These tiny particles (called PM2.5) can be inhaled into the lungs and damage lung tissue. Because gas stoves burn fuel to cook, they release twice as much PM2.5 as electric stoves.

PM2.5 is linked to serious and potentially fatal heart and lung problems, strokes, dementia, preterm birth, and low birth weight. A number of carcinogenic compounds such as *benzo[a]pyrene* or radon breakdown compounds can attach themselves to particulates and use the particulates as a way to travel into your lungs.

WHY IS THIS IMPORTANT

TO MY OR MY CHILD'S HEALTH?

Chronic exposure to pollutants released from gas and wood burning stoves can lead to...



Fatigue

A child with Asthma

Itchy Eyes

Vomiting

- Nausea
- Vomiting
- Chest pain
- Heart disease

- Asthma/ Asthma Attacks
- Headaches
- Dizziness

- Itchy eyes, ears, nose, throat
- Fatigue
- Cancer

- Respiratory Infection
- Lung Disease
- Difficulty Breathing

WHAT TO DO

OPEN WINDOWS, INSTALL EXHAUST FAN

Install an exhaust fan above your stove to remove pollutants from the air.

If using a gas or wood stove, open windows while cooking to help ventilate harmful gases and particulates.

Open a Window

Install an Exhaust Fan

Use an Exhaust Fan

MAKE SURE YOUR FLAME TIP IS BLUE

While using a gas stove, ask your gas company to adjust the burner so that your flame tip is blue. A yellow-tipped flame indicates an improperly adjusted stove, and releases increased pollutants into the air. If you purchase a new gas stove, purchase one with pilotless ignition. A continuously burning pilot light releases more pollutants into the air.

IF BURNING WOOD, DO IT RIGHT

If you use a wood burning stove, make sure that the doors of the stove fit tightly. Only burn aged or dried wood. Other woods may be chemically treated. Pressurized or chemically treated woods should never be burned indoors.

Be careful when replacing gaskets in old wood stoves. Some older gaskets contain asbestos.

Refer to proper asbestos disposal by the EPA. Try to keep wood stove use to a minimum and only use wood stoves if they meet current EPA emission standards.

Click here to check if your wood stove meets EPA emissions standards

ELECTRIC AND INDUCTION STOVES ARE PREFERABLE

If you are in a position where replacing your stove is an option, replace your gas or wood burning stove with an electric or induction cooktop. If you are not able to replace the entire appliance, small portable induction cooktops are available. These stoves release fewer pollutants and are better for the environment.