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MOTHERS OUT FRONT
MOBILIZING FOR A LIVABLE CLIMATE

Gas is the Past!

Natural gas carries risks to our health and our planet

Cooking with gas can harm children

Cooking with gas releases fumes into your kitchen. Both unburned gas and burned (combusted) gas release toxic chemicals into the air in your home.

These chemicals include lead, chromium, benzene, hexane, formaldehyde, and nitrogen dioxide (NO_2).[1] All of these are harmful to human health.

Many people think that the vent over their stove is just for removing cooking odors, but it's actually very important to turn on the fan whenever cooking with gas to remove the toxic chemicals from the air in your home.

Using gas to cook makes children more susceptible to respiratory infections and worsens asthma, especially in homes that aren't properly ventilated.

Here's the research:

A nationally-representative study of US children described increased prevalence of asthma, chronic bronchitis, and wheezing among children whose parents reported using a gas stove without ventilation.[2]

A similar study found that the prevalence of pneumonia and coughing in younger children was higher in families who cooked and heated their homes with gas stoves.[3]

Another analysis of 41 studies found a 32% increased risk of asthma among children in homes where gas was used for cooking.[4]

Nitrogen dioxide is well studied, harmful to children, and significantly higher in homes with gas stoves.[5,6] In a combined analysis of 11 pediatric studies, researchers concluded that a long-term increase of 15 parts per billion of NO_2 (about the difference between cooking with gas versus electric) increased the risk of respiratory illnesses such as asthma by 20%.[7]

In Massachusetts, researchers also found a "dose-response" relationship between the amount of NO_2 exposure (the "dose") and the asthma severity of children (the "response"). The more NO_2, the worse the asthma.[8]

Fracking contaminates air & water

In Massachusetts, more than half of the gas we use is mined through hydraulic fracturing, also known as fracking.[9] Fracking contaminates local air and water.

Living near a fracking site is associated with higher rates of asthma as well as premature and low birth-weight babies[10] who have long-term health risks and medical costs.

By reducing our consumption of gas, we can help protect these communities.

Why getting off of gas matters:

- Healthier kids
- Cleaner air and water
- A more livable, stable climate

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"Natural" gas speeds up climate change

Here in New England, many of our homes use natural gas.[11] This gas is mostly methane, a potent greenhouse gas. Because a significant amount of that methane leaks into the atmosphere all along the system from where it's produced to where it's used, natural gas damages our climate more than coal.[12]

Switching from gas to electric appliances powered by clean, renewable energy is part of the solution!

Time to turn off the gas!

You can help make your home safer for your children, reduce air and water pollution from fracking, and be a part of the climate change solution.

- Always turn on your vent hood or open a window when you cook with gas.
- Use an inexpensive single or double burner induction cooktop instead of your gas stove. You can even place it on top of your gas burners, but remove the knobs so no one accidentally turns on the gas and melts it.
- Replace your gas stove with an electric or induction stove when you can.
- Plan to replace your gas or oil heat with an electric system when you can.

A well-designed study shows that replacing a gas stove with an electric one reduces indoor NO_2 levels.[13] Using ventilation can help too, but the same study found that vents were not as helpful at reducing NO_2 levels, probably because people tend to forget to turn on the vent.

Another Boston study found that replacing a gas stove with an electric one may create healthcare savings by reducing asthma-related hospital visits.[14]

Is an Induction Stove Right for You?

If you love the control of gas cooking, try an induction stovetop instead.

- The temperature control of induction is just as fine as gas but more consistent.
- Food cooks up to twice as fast.
- The stovetop is easier to clean.
- It is harder to burn yourself.
- There are no explosive gasses or toxic chemicals from gas in your kitchen.

Induction cooking is powered by electricity, not gas. **In Massachusetts, using an induction stove instead of a gas one cuts carbon emissions in half.** As we speed up our transition to more renewable energy, your emissions will decrease faster.

Make a Plan

Switching your house to all electric is part of the transition to using only clean, renewable energy. It can take time to move from gas to electric but it's worth the effort for your family's health and our climate. Make a budget and a timeline for switching to an induction or electric stove and an electric heat source when you can. Or be ready to make the switch when your old gas appliances break.

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