

Playing it safe with fumes from gas stoves

By Teddi Nicolaus

Maybe you grew up with a gas oven, cooktop or range, or perhaps you have one now. It probably helps you create delicious meals. But unfortunately, the natural gas that comes out of your stove can also expose you and your family to harmful air pollution.

"This air pollution is created right inside your home and can have negative health effects," says Josiah Kephart, PhD, MPH, assistant professor in the Department of Environmental and Occupational Health at Drexel University.

More than 30% of U.S. households — or about 40 million homes — use gas stoves, and in some states that number is as high as 70%. Many people love gas stoves because of how fast they heat up. Gas stoves also tend to come with a lower price tag than other options. But the cost we pay for our health isn't cheap.

"While we all have our own preferences for cooking appliances, gas stoves produce much higher levels of certain air pollutants than electric stoves," Kephart says.

Unlike other gas appliances such as water heaters housed in closets, garages or basements, gas stoves are in the same room where many of us spend a lot of time: the kitchen. While we're cooking, we are being directly exposed to their emissions, such as formaldehyde and an air pollutant called nitrogen dioxide.

Scientists have known for years that nitrogen dioxide can increase asthma symptoms or trigger attacks, and can have other harmful impacts on your lungs and heart. Smaller homes or apartments with poor ventilation are at higher risk.

"Children, older adults and anyone with a respiratory disease are especially at risk from breathing gas stove pollution," Kephart says.

A study found that 13% of asthma cases



among U.S. kids are likely linked to gas stove use. Other studies show that the gas in stoves contains toxins and chemicals such as benzene, which is linked to cancer. Gas stoves can also release carbon monoxide — a poisonous, odorless gas that can cause health issues ranging from headaches to confusion, loss of consciousness and death. The risk is higher if the stove is installed incorrectly or not vented properly.

Gas stoves can even release pollution when they're not being used. One study found they can leak as much cancer-causing benzene as secondhand cigarette smoke.

In addition to causing indoor air pollution, gas stoves also pollute the environment and add to climate change. In fact, researchers at Stanford University found that methane — a greenhouse gas — leaking from stoves in our homes has the same climate impact as about 500,000 gas-powered cars each year. Studies also show gas cooking produces over 25 million tons of carbon pollution each year in the U.S.

Lower your risk

Many of us interact more with our stoves than any of the other appliances in our kitchens, which is why it's important to take steps now to protect ourselves and our families from dangerous gas stove emissions.

PUSH IT OUT: Using your stovetop's ventilation system can help reduce pollution, especially if your ventilation system vents outdoors, says Kephart. Using your stove's back burners is also a good idea, as ventilation devices generally capture more emissions from the back burners than the front ones. Opening windows is also a great way to reduce your exposure to gas stove pollution.

CUT IT OUT: You can cut down on how often you use your gas stove by using electric appliances, such as rice cookers, pressure cookers,

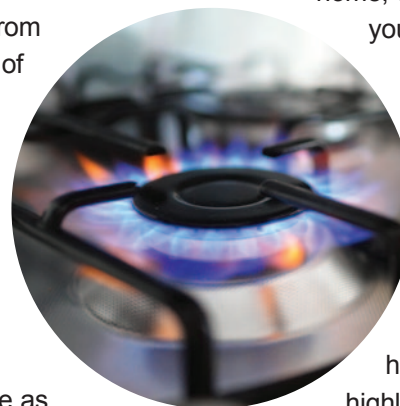
slow cookers, toaster ovens and air fryers.

WATCH OUT: Keeping an eye on how you use your stove can reduce pollution. For example, never leave a burner running while unlit. Also, if you smell rotten eggs in the home, call for help, as it may mean you have a gas leak. Install a carbon monoxide detector to help monitor your air safety.

SWAP IT OUT: If you decide to get rid of your gas stove, you might want to consider replacing it with an electric induction cooktop. In addition to being cleaner and healthier, experts say they are highly energy efficient and perform much better than old-fashioned electric coil stoves. Induction stoves can boil water in seconds and cook food even more precisely than gas stoves. Even better, their surfaces stay cool to the touch, which is an important safety consideration for homes with kids.

Switching to a different kind of stove may require new cookware and may not be affordable for everyone. But the good news is there are many local, state and federal rebate and subsidy programs to help with the financial cost of replacing a gas stove.

"Make sure to check with your local electricity company and to search for government programs that might help you make the switch," Kephart says.



Art and photos courtesy: iStockphoto: Pans with food, S-S-S: woman at window, Stefanamer: woman cooking, Meeko Media: gas burner, M-Production