



Response to Full Frontal with Samantha Bee segment on Indoor Air Quality (Run Date June 2, 2021)

June 4, 2021

On June 2, 2021, Full Frontal with Samantha Bee ran a story on indoor air quality titled "Here's Why Your Gas Stove is Killing You." See the full story and the transcript [here](#). Below we have outlined the claims made about the health impacts of natural gas appliances in the story and responses.

Claim: "We looked at 50 years of health research on what are the human health risks of gas stoves and what we found is that it is mostly respiratory because we are bringing in pollutants."

The Rocky Mountain Institute (RMI), in collaboration with Mothers out Front, Physicians for Social Responsibility, and Sierra Club, released a report titled Health Effects from Gas Stove Pollution. The RMI report is one of several reports, slide decks, and blogs that has been crafted to support policies to limit or remove the option of natural gas from homes and incentivize or mandate electric appliances in homes and businesses.

AGA conducted a review of Health Effects from Gas Stove Pollution. That report presented a select and narrow view of the scientific literature with respect to issues related to indoor air quality and gas cooking. Some of the findings in the Health Effects from Gas Stove Pollution are not justified based on the report's supporting statements and citations. Furthermore, the report's conclusions and recommendations are not sufficiently substantiated for making policy or consumer decisions about energy choices.

Claim: "They are invisible, odorless pollutants. If we look with special science goggles which I totally own, we see that gas stoves emit poisonous particles shown to give kids asthma and can worsen respiratory and cardiovascular diseases. Jesus! who would have thought an open flame in your home would do that."

Response: There are no documented risks to respiratory health from natural gas stoves from the regulatory and advisory agencies and organizations responsible for protecting residential consumer health and safety. The Federal Interagency Committee on Indoor Air Quality (CIAQ) has not identified natural gas cooking emissions as an important issue concerning asthma or respiratory illness. Furthermore, the U.S. Consumer Product Safety Commission and EPA do not present gas ranges as a significant contributor to adverse air quality or health hazard in their technical or public information literature, guidance, or requirements.

The association between the presence of a natural gas cooking appliance and increases in asthma in children is not supported by data-driven investigations covering actual appliance usage, emission rates, exposures, and the control of other factors that are well established for contributing to asthma and other respiratory system threats.

The study “Cooking Fuels and Prevalence of Asthma: A Global Analysis of Phase Three of the International Study of Asthma and Allergies in Childhood (ISAAC (International Study of Asthma and Allergies in Childhood)),” which analyzed 512,707 primary and secondary school children from 108 centers in 47 countries, there is “no evidence of an association between the use of gas as a cooking fuel and either asthma symptoms or asthma diagnosis.”

Additionally, the video captured infrared images of a natural gas stove in operation. It did not show images of "poisonous particles," but rather it showed the heat produced by the flame, which is exactly what you want when you cook.

Claim: “The new electric stoves is induction, it's the future of cooking. It is like the tesla of cooking because you are boiling water in half the time. [It was implied here that electric appliances are cleaner than other appliances]”

Response: Indoor air quality studies have consistently found that emissions from the cooking process—not solely from the burner or heat source operation—represent the chief source of concern with respect to indoor air quality for various classes of pollutants such as particulate matter and volatile organic compounds. Also, common-sense use of windows and house ventilation may control smoke, heat build-up, and other environmental stresses associated with the cooking process. Modern residential building codes require kitchen ventilation to address general ventilation requirements, including normal indoor air quality concerns in kitchens. These ventilation systems should be operated by consumers to maintain good indoor air quality.

Switching to electrical appliances is not a useful strategy to address indoor air quality because the emissions of concern are dominated by the smoke and grease that comes from cooking, regardless of the energy source used in conventional residential appliances.

It is also important to note that induction ranges are an expensive investment and require induction compatible cookware which many households would need to purchase. In addition, there is a possibility that a homeowner would need to upgrade their electrical service in the kitchen, for full size ranges especially, as many of the most practical individual burners consume around up to 1,500 to 1,800 watts each, requiring upgrading electrical service if it not already serving an electric range.

Claim: “The gas industry has done a great job marketing, but gas stoves emit a lot of the same pollutants that come from our car tail pipes in your home.”

Response: The association of gas stove combustion emissions with car tailpipe emissions is sensational and uncalled for. There is no evidence that any emissions from gas stoves exceed the regulated safety thresholds.

While combustion emissions from gas ranges, ovens, and cooktops can contribute to household concentrations of recognized pollutants, there are no documented risks to respiratory health from natural gas stoves from the regulatory and advisory agencies and organizations responsible for protecting residential consumer health and safety.

Residential gas cooking appliances represent a minor source of NO₂. The principal source of indoor NO₂ is polluted outdoor air that migrates indoors from vehicle and other sources.

Federal health and safety agencies do not identify specific health or safety issues concerning NO₂ emissions from residential gas cooking appliances that would require removing or altering these appliances or their use as a mitigation approach.

All certified gas appliances must meet emission limits set by the Z21/83 standards committee using its American National Standards Institute (ANSI) approved standards procedures. Studies show that gas ranges produce considerably less than the allowable maximum in the standard.

Claim: "The gas industry does not want to look at the health science, but we should not be in this position as individuals."

Response: The natural gas utility industry is absolutely committed to the safe and reliable use of natural gas as a foundation fuel in homes and businesses. As concerns over emissions from gas ranges are raised and debated, the natural gas industry is focused on bringing objective technical information to the discussion. The gas utility industry, in collaboration with research organizations and appliance manufacturers, continues to develop information and provides education for consumers, employees, fuel suppliers, and regulators about the safety of gas cooking appliances and ways to reduce cooking process emissions from impacting indoor air quality. These groups are heavily engaged in promoting the safe use of natural gas appliances through the development of standards for the design of natural gas appliances, participating in building safety codes and standards proceedings, and federal agency reviews. AGA supports and is engaged in testing emissions of combustion products, analyzing data, and assessing emissions contributions to indoor air quality in homes. Furthermore, AGA continually reviews indoor air quality exposure and health effects literature from peer-reviewed sources, federal agency policies, and health organization consensus documents.