

AGA Response to the Wall Street Journal: Why New Induction Cooktops Are Safer and Faster Than Gas or Electric

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The *Wall Street Journal* published an article titled [Why New Induction Cooktops Are Safer and Faster Than Gas or Electric](#), which includes a number of inaccurate claims about the health impacts of natural gas appliances. Outlined below are the claims made in the article and responses to each.

Claim: “What he doesn’t enjoy, however, is the well-documented risk that he could be releasing nitrogen dioxide, carbon monoxide and formaldehyde into his kitchen every time he turns the knob.”

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.
- 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.
- A landmark publication by the National Institute of Medicine, entitled *Clearing the Air: Asthma and Indoor Air Exposures*, acknowledged that “most epidemiologic studies reviewed [concerning health concerns and gas ranges] have assessed NO₂ exposure based on the presence or absence of gas appliances in the home, rather than based on NO₂ measurements.”

Claim: “The result is a safer hob that spews fewer pollutants, uses less energy and allows food to reach higher temperatures faster than your old stove.”

Response: There is no substantive evidence that induction cooking is cleaner when cooking byproducts are considered.

- 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.

- Installing an exhausting range hood, where possible, can help if regularly used. Installation and use of recirculating hoods may also provide some effectiveness in controlling particulate matter, oil-laden smoke, and other cooking process emissions that generate poor kitchen air quality.
- 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.

Claim: “Probably the fastest way to heat up a pan is induction,” he said. Induction ranges can heat a quart of water in 101 seconds, compared with eight-to-10 minutes for gas and electric stoves.”

Response: Chefs and avid cooks love the flexibility of natural gas: how it provides heat immediately and that when you shut it off there is not residual heat that remains. It is 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.