

INDUCTION COOKING

How does induction cooking work?

An induction stove uses electromagnetism to heat up the pan. The rapidly changing current makes the magnetic particles in the iron pan vibrate and get hot.

Because the iron in the pan is needed to create heat, you must use a pan that is attracted to a magnet. Our library kit includes a magnet for you to test your pots.

The cooktop stays cool until a pan is put on the "burner". Although much safer than gas,, please use caution when using the cooktop.

Use the camera on your smart phone to take a picture of the QR code below to find more resources on induction stoves at Lincolngreenenergy.org



FASTER

Induction stoves transfer energy rapidly to a magnetic pan, boiling water twice as fast as gas.



IMMEDIATE RESPONSE

With no grate, coil, or radiant burner to heat up, the temperature adjustments are immediate.



ENERGY EFFICIENT

Just the pan is heated. No energy is wasted heating the air around the pan. Induction stoves are 85% efficient. Gas stoves only deliver 32% of the flame heat to the pan.



HEALTHIER

Induction stoves don't burn fuel. Gas produces NO₂, CO₂, and formaldehyde which can lead to asthma and cardiovascular disease.



COOLER KITCHEN

Since all the energy is going into the pan rather than the air, the kitchen stays cool.



SAFER

With no flame and little residual heat after you remove the pan, induction cooking reduces accidental burns. There will never be a gas leak, and there is no igniter to fail or gas line to break.



EASY TO CLEAN

Induction stoves have a smooth, easy to wipe clean ceramic glass surface. There is no grate on which food and grease accumulate.



WIDER TEMPERATURE RANGE

Induction cooktops offer higher boil and lower simmer temperatures than gas, and hold them steady.



EVEN COOKING

An induction stove heats up the entire pan simultaneously and more evenly than a gas flame or electric coil.

Healthy Lungs Healthy Climate

Natural Gas fueled Stove



Emits toxic gases into your home such as formaldehyde and carbon monoxide

Releases carbon dioxide and methane into the atmosphere, which contribute to global warming

Requires fracking and environmentally unfriendly practices to harvest, process, and transport the fuel

Risk of fire from open flame inside the home and from gas leaks

Electric Induction Stove



Healthier for you and your family's lungs and cardiovascular system

Electrifies home, transitioning consumers toward increased use of renewable energy

Efficient and safe, heat is concentrated in the pan, not the burner

Faster, consistent cooking and easy clean up

Notes

All cooking releases microscopic particles of food into the air. A hood that vents to the outdoors should be used during all cooking and for 20 min after finishing. If you have a pacemaker or similar device, consult your doctor about induction cooking.

Next Steps

The Library of Things

The Lincoln Public Library has a one burner portable induction cooktop available for checkout.

Library patrons can separately check out an induction capable pot.

Installing

Induction cooktops can be found at any appliance store. Ranges and cooktop stoves use a 240 Volt outlet which may require installation by an electrician.

Portable units use 120 volts and can plug into any outlet.

Resources



Webinar with expert panelists discussing health hazards of gas and benefits of induction stoves
<https://youtu.be/7ePeMo8Z1T8>

Questions:
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This handout is adapted from the Bay Area Regional Energy Network flier at ecologycenter.org.