

# INDUCTION COOKING

Your guide to energy-efficient stoves and cooktops.

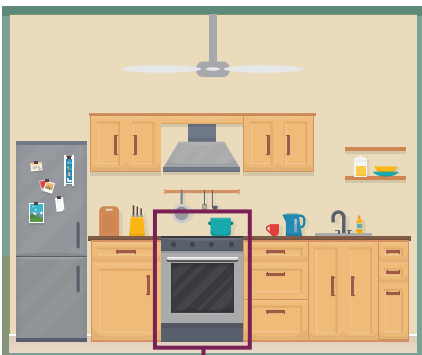
With advancements in induction cooking technology, induction stoves are now able to cook faster and safer than ever before. Offering more control and easier cleanup, induction cooktops make a great addition to residential and commercial kitchens alike, while also fighting climate change and providing better indoor air quality.

## IMPROVED INDUCTION TECHNOLOGY COMES WITH NEW FEATURES AND ADVANTAGES.

- **Safer** | Overall kitchen safety is improved for both adults and children, as well as professional chefs. Without an open flame, accidental injuries or kitchen/grease fires are greatly reduced. Induction cooktops are also safe from gas-related dangers, such as leaks or line breaks.
- **Faster** | An induction stove can transfer more energy into cookware faster than a gas, traditional coil, or radiant electric stove. This means reaching desired cooking temperatures or boiling water faster.
- **Easy to clean** | Induction stoves have a smooth, easy-to-clean ceramic glass surface without grates, nooks, or crannies where grease and spills accumulate.
- **Immediate response** | Cooking temperatures can be raised or lowered instantly. With no grate, coil, or radiant burner to heat, all energy goes directly into the cookware. Induction stoves also feature instant on and off responses when cookware is placed on top or removed.
- **Accurate control** | Digital controls allow setting an exact — and repeatable — amount of heat without having to judge a variable flickering flame.



- **Wide temperature range** | In comparison to gas stoves, induction cooktops provide and accurately maintain both high boiling temperatures and lower simmer temperatures.
- **Even cooking** | An induction stove heats up the entire pan simultaneously and more evenly than a gas flame or electric radiant coil, which only heat the part of the cookware they touch.
- **Efficient** | Just the cookware is heated. No energy is wasted heating the air around the pan.
- **Cooler kitchen** | Without an open flame, plus the direct application of energy into the cookware rather than the air, kitchens stay cool and more comfortable.
- **Easy to install or move** | Plug-in installation in homes that already have 240 Volt outlet in kitchen, with no gas line or connection required.
- **Healthier** | Induction stoves do not emit any toxic gases into your house. Gas stoves emit toxic gases, such as nitrogen dioxide, carbon monoxide.
- **Climate friendly** | Induction stoves use electricity while gas stoves contribute to climate change by emitting carbon dioxide into the atmosphere. California is making its electricity generation more climate friendly by increasing renewable sources that do not emit carbon dioxide.



Induction stoves are safer and healthier to use and keep kitchens cool.

# INDUCTION COOKING

## How does induction cooking work?

An induction stove heats up the pan by magnetism. Instead of burning gas, the stove reverses a magnetic field back and forth very rapidly. This sends alternating magnetic energy into the metal pan or pot, heating it up.

## How do I get an induction cooker?

Induction cooktops can be found at any appliance or home improvement store and prices are coming down. They are sold in three different configurations:

- **Range** | These are four to six hob cooktops usually paired with an electric convection oven. They require a 240-volt outlet. Prices in 2019 range from under \$900 to over \$3000.
- **Cooktops** | These four to five hob cooktops drop into a countertop installation independently from a standalone oven of any variety. They require a 240-volt outlet or may be hardwired into the electrical system. Prices range from \$500 to over \$2000.
- **Portables** | These one and two hob units can be set on a countertop anywhere and plugged in to a standard 120-volt outlet. These generally don't have the power boost option to heat up as fast as the 240-volt models, but are still rapid. Prices range from \$50 to over \$500 for some commercial grade portables. Both business and residential customers may borrow a table top induction unit from our Foodservice Technology Center for free. Learn more at [sce.com/ftc](https://www.sce.com/ftc).

## Tips for converting to induction cooking.

- **Cookware** | All iron pans work — cast iron skillets and all other iron including enamel or ceramic coated iron. Most stainless steel works, as does blue steel. Aluminum, copper, and glass work only if the manufacturer has added an iron or steel plate to the bottom. Most cookware available is Induction Ready, but you may check your pans by holding a magnet to the bottom. If a magnet sticks, the pan will work. Look for a cooktop that allows bridging two burners together to cook on a cast iron griddle.
- **Power source** | One- or two-burner portable induction cooktops can be plugged into a regular 110-volt wall outlet. A full size four or five burner stovetop with power boost for fastest boil requires a dedicated grounded 240-volt outlet with a 40- or 50-amp breaker. Check with a licensed electrician to make sure your wiring is ready to handle the load.
- **Safety** | Look for a cooktop with a sensor that doesn't allow the burner to be turned on unless it senses a pan and automatically turns off in a few seconds once the cookware is removed. This is a common feature now. If you have a pacemaker or similar device, consult with your doctor.



**FOR MORE INFORMATION**

Contact [CleanEnergyHome@sce.com](mailto:CleanEnergyHome@sce.com)

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