

How Does a Gas Oven Work?

By Isaiah



Basics

1. A gas oven has several burners in it, all controlled by a thermostat. When you turn on your gas oven, an electric lighter ignites the burners. The burners continue to warm the air in the oven until it is above the temperature you selected on the thermostat. The oven then turns off until the temperature drops below the temperature you selected. At that point, it turns on again. Modern gas ovens are well-insulated, so they can stay at the selected temperature with very little additional heating.

Conventional and Convection Ovens

2. A conventional gas oven uses heating elements exclusively to heat the food. The hot air does some of the cooking, but a lot of the work is done by infrared radiation from the heating elements. Conventional ovens tend to have some hotter spots and some cooler spots, which can make it hard to cook food evenly. Convection ovens improve on this design by simply adding a fan. The fan blows the air around the oven, spreading the heat around evenly. The hot air blowing past the food tends to cook it faster as well. Even at lower temperatures, convection ovens will sometimes cook food faster than conventional ones.

3. Differences from Electric Ovens

- Gas ovens retain heat longer than electric ovens and can therefore be used more efficiently as a warmer once the thermostat has been turned off. However, because the burners shut off automatically when the set temperature is reached inside the oven and turn back on when the temperature inside the oven drops below said temperature (during the [cooking](#) process), the heat in the oven is not as steady as it is in electric ovens. Also, typical electric oven settings like "keep warm," "delay" and "cook and hold" are not as readily available on gas ovens.