

MICROWAVE VS TOASTER OVEN: WHICH ONE IS MORE ENERGY EFFICIENT?

Frank Scotti - 09 November, 2018



Selecting the right energy-efficient instant cooking appliance in your kitchen is one easy way to save energy cost at home.

According to Energy Star, using a microwave or oven to cook can save up to 80% energy. Plus the microwave doesn't heat up the kitchen during the summer season and it helps with air conditioning cost saving. This article will help you to understand how these appliances work when considering whether to use a microwave vs an oven or toaster oven vs a microwave.

Microwaves use high-frequency radio waves to heat the water molecules inside food. The food essentially cooks from the inside out, leaving the air around the food to remain at room temperature. In essence, microwaves heat all the food at once. This method reduces cooking time and energy consumption, especially when cooking small amounts of food like bread or a cup of soup.

In contrast, a conventional oven heats primarily by convection: the hot air surrounds the food and the heat from hot coils comes as a result of the temperature difference between the hot air and the food. Toaster ovens cook food by combining hot air with radiant heat.

Microwave vs oven

Cooking a potato is one way to understand the potential cooking benefits of using a microwave vs oven. Averagely cooking four medium potatoes takes about 15 minutes in a microwave oven. Cooking those same amount potatoes in a conventional oven would take about an hour. This is obviously a reduction in both time and energy costs.

However sometimes, though, an oven is the right energy efficient cooking appliance for the task at hand. Larger amounts of food, for instance, do better in an oven than a microwave.

Toaster oven vs microwave

Toaster ovens and microwaves generally have different wattage. The average microwave uses 1000 watts, and toaster ovens 1225 watts in the U.S. That means from the get-go the microwave is ahead of the toaster oven in energy efficient cooking as it uses about 20% less power.

Toaster ovens also beat out conventional ovens. They use about 33% to 50% of the amount of energy of a conventional electric oven when cooking small meals.

Toaster ovens are primarily used for toasting and baking, and less frequently for defrosting, warming or broiling food. The survey shows 27% of families use their toaster ovens for only toasting, while 7% use it only for baking.



Most will agree that we can benefit from having both. Comparing a microwave oven to a toaster oven is not really a fair comparison. I would not consider cooking a solo pizza on a microwave. Nor would I heat a bowl of soup in the toaster oven.

If you are in the market for either appliance, be sure to get an energy-star rated appliance. Carefully consider the size of the microwave, and match the size to your needs without oversizing. Then use each appliance for what it is best for. Nothing really surprising or tricky here.