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The air fryer is a popular kitchen countertop appliance that is easy to operate and even easier to clean. Air fryers circulate hot air around food, cooking it quickly and evenly. This method is a healthy alternative to conventional frying because you use little or no oil in the cooking process. Food comes out crispy on the outside while moist and tender on the inside.

AIR FRYER BASICS

Air fryers sit on the countertop and plug into an outlet, much like a slow cooker. They consist of an electric heating element, a fan, and a basket to hold food. The top half of the unit holds the heating element and fan. The bottom half has a pull-out basket that holds food. When the unit is on, hot air circulates, cooking food quickly and evenly.

Some units have digital control panels while others have large dials or knobs. Some units may be multifunctional, combining several appliances in one unit. These units look like toaster ovens, and air frying is just one of their functions. Multifunction units offer rotisserie cooking, dehydrating, and toasting in addition to air frying. All units come with an operator's manual that includes recommended cooking times and temperatures. Many units will come with recipes. Many brands have cookbooks for sale, as well.









PREPARING TO AIR FRY

Find the right place in your kitchen to operate the air fryer. Always operate the air fryer on a level, heat-resistant surface. Do not place it on a stovetop, gas grill, or propane tank. If your countertop isn't heat resistant, use a heat-resistant mat. Allow at least 5 inches of space around the unit. This includes the back, sides, and top. Do not operate the unit against a wall and do not sit anything on top of the unit. Be sure to use the proper power source, and do not use an extension cord.

Use the proper breading technique. You cannot cook foods with wet batter in the air fryer. The batter will fall off the food and burn in the bottom of the basket. Coat the food with flour first, then an egg wash and follow with breadcrumbs. Press the breadcrumbs onto the food so they stick and don't blow around during the cooking process.

Use the right accessories. You can use air fryers to bake and roast food too. You can use any baking dish that is oven-safe in the air fryer as long as it fits in the basket and doesn't touch the heating element. Keep in mind that most air fryer baskets are small, and you will need to buy specially sized baking dishes and cake pans separately. There are also disposable air fryer liners available for purchase to aid in clean up.

OPERATING YOUR AIR FRYER

Preheat the unit before adding food. Follow the instructions for your specific unit. As a rule, turn the fryer to the temperature you need and set the timer for 3 to 4 minutes. When the timer goes off, the unit will be hot and ready to add food to be reheated or cooked.

Prep the food. Use cooking spray or toss food in a few teaspoons of vegetable (or olive) oil along with your choice of seasoning before placing in the basket. You only need a light coating of oil for food to come out crispy. Do not spray oil onto the basket. Frozen food and leftovers do not need any preparation.

Don't overcrowd the basket. Do not put too much food in the basket. Overfilling the basket will prevent air from circulating around the food and some pieces may not cook completely. Food that is stacked in a basket won't crisp and brown evenly and will result in longer cook times overall.

Set the temperature and time. Follow the instructions for your specific unit. Most units come with a chart of times and temperatures for cooking common foods. As a rule, the air fryer temperature should be set 25 degrees lower than you would set your oven.

Flip foods over halfway through the cooking process. For the best results, turn foods over (just like cooking in a skillet or on the grill) so they cook and brown evenly. You can flip some foods, like tater tots, by shaking the basket. You'll need to flip other foods individually using tongs.

Pull out the basket to check on doneness. Removing the basket will not interrupt the cooking process. The fan will stop but it will start up again when you put the basket back in place. The time and temperature will resume as if you had not removed the basket. Use a metal-stem food thermometer to check for doneness when cooking meats, poultry, and eggs in the air fryer. Place the thermometer in the thickest part of the food without touching any bones. Cook or reheat foods to the internal temperature listed in the chart below.

PRODUCT	MINIMUM INTERNAL TEMPERATURE
Steaks, chops, and roasts (beef, pork, and veal)	145°F with 3-minute rest time
Ground meats (beef, pork, lamb, veal)	160°F
Poultry (whole birds, parts, ground meat)	165°F
Eggs	160°F
Fish and shellfish	145°F
Leftovers and casseroles	165°F

Don't just dump the basket of food when cooking is complete. Even if you aren't cooking with oil, some of the foods you cook naturally contain fats and oils. Grease will collect in the bottom of the basket during the cooking process. Remove food from the basket with spoons or tongs to avoid pouring grease over your perfectly cooked food.

CARING FOR YOUR AIR FRYER

Unplug the unit after use. Allow the unit to cool before cleaning. Use a damp cloth to wipe down the outer body.

Remove the basket and any accessories. You can wash the basket and accessories in the dishwasher or by hand with hot soapy water. Follow the cleaning instructions for your specific unit for placement in the dishwasher.

Wipe the inside. Use a soft damp cloth or nonabrasive sponge with a little dish detergent to wipe the inside of the unit. Follow up with a clean damp cloth, if necessary, to remove soap.

Dry all parts. Allow the basket and any accessories to completely dry before putting it back together and storing.

THINGS TO CONSIDER BEFORE BUYING

AIR FRYER PROS

- Easy to operate
- Easy to clean baskets and accessories are dishwasher safe
- Versatile you can roast, grill, bake, and some will dehydrate
- Healthier than frying in oil
- Up to 20% faster cooking time
- Uses less energy than your oven
- No "deep fried smell" in the house after cooking
- No used oil to dispose of
- Great for reheating leftovers

AIR FRYER CONS

- Takes up counter space
- The fan can be loud
- Limited cooking capacity not suitable for preparing large quantities of food
- Needs additional accessories for baking
- Food has different flavor and texture than deep fried food

If you are thinking about buying an air fryer, you should consider cost, enjoyment, ease of operation and features, as well as where you might store it. How much money are you willing to spend? Air fryers range from \$69 to \$200 depending on the size, features, and added functions. Most units require additional equipment for added options such as baking or dehydrating.

How much do you enjoy eating deep fried food? The flavor and texture of some foods, especially meats, are slightly different than conventional frying. If you are looking for that deep fried flavor, an air fryer may not be the best option.

How often will you use it? Will this be a primary method of cooking, or will you just use the appliance for frozen novelties and reheating leftovers? Will you get your money's worth and is it worth the counter space?

How many people do you cook for? The fryer baskets are relatively small. An air fryer with a 1.75-to-3-quart capacity is best for preparing meals for a household of one or two people. Even a large air fryer with a capacity of 5 to 6 quarts will often require food to be cooked in batches. If you cook for a household of four to six people, you will be extending your cooking time.

CONCLUSION

Air fryers are an innovative kitchen appliance that offer many benefits. They cook food by circulating hot air using little to no oil – making them a healthier cooking method than deep frying. Air fryers are relatively small and affordable when compared to other kitchen appliances. They are available in a variety of sizes and offer multiple cooking methods. Consumers should consider their lifestyle and choose an air fryer that meets their needs.

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Frontiers in Nutrition https://www.frontiersin.org/articles/10.3389/ fnut.2022.889901/full

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