

What's New in the Kitchen?

Technology and innovation in the home kitchen are ever changing. This workshop covers four modern kitchen appliances: the spiralizer, heavy duty blenders, the air fryer, and the newest type of electric pressure cooker.

The information provided will discuss the purpose and functionality of each appliance, the economic and environmental benefit, safe operation, and using the appliances to make healthier choices.

Spiralizers: Fad? Or New Standard?

What began as a trend for Vegans is now a standard in many kitchens

Why spiralize?

- It's cheap, fun and gets kids to eat more veggies!
- Grain-free "pasta"; 1 cup of spiralized veggies are 300 fewer calories than 1 cup of regular pasta
- Budget-friendly when using in-season veggies/fruits
- Versatile: nearly every type of fruit or vegetable can be spiralized
- Makes beautiful, interesting versions of ordinary fruits and veggies; fettuccine like ribbons, angel hair, chips

What types of spiralizers are available?

- Two general categories: countertop models and handheld models.
- Most have three blades:
 - A flat "fettuccine"-type: slices and veggie chips
 - Small and large julienne blades: "angel hair" and all-purpose "spaghetti" shapes.
 - Additional blades for coarse and fine shredding.
- Most fall in the \$25-\$45 price range and are constructed from a similar molded white plastic.
- Horizontal /countertop:
 - About the size of a large shoebox and operate in much the same manner as an apple peeler with a toothed grip that holds the produce and a crank handle that rotates the grip and guides the fruit or vegetable through one of a series of interchangeable blades.



Pictured Above: Handheld Spiralizer



Pictured Above: Countertop Spiralizer



Pictured Above: Electric Spiralizer

Can spiralized vegetables be frozen?

Many spiralized vegetables can easily be frozen.

- **Best for freezing:** sweet potato, butternut squash, beet, carrot, and broccoli stems

While zucchini and cucumber noodles can be frozen, they contain such a high amount of water that they break down when thawed. When ready to cook, you can add directly to your pan and cook, covered, until thawed or allow to thaw overnight in the fridge.

Storing spiralized vegetables: In water in the refrigerator for up to three days

Heavy Duty Blender

Before buying, ask:

What do I want to make?

- **Soups?** Heavy duty blenders have a large capacity and the power to chop vegetables uniformly
- **Smoothies?** Unless you are making smoothies every day with lots of ice and some greens a standard countertop blender might be a better, more economical choice
- **Sauces?** Nothing beats the heavy duty for emulsifying homemade mayonnaise, dips, and dressings
- **Nut butter?** Excellent for making homemade peanut or other nut butter with a smooth consistency
- **Grain flours?** If you want to grind whole grains, you can use a heavy-duty blender and not have to purchase a grain mill



How often will I use it?

- Frequent use makes the heavy duty blender a more durable choice

Some characteristics to consider before purchasing a heavy duty blender:

A tight-fitting lid: secure to put on and take off and, ideally, be dishwasher safe.

A pour spout: A removable plug in the lid to make it easier to add ingredients for things like emulsions or cream soups.

A stable base: Blenders that feel wobbly or vibrate a lot when they blend are likely not performing at peak efficiency, which means they take longer to mix.

Easy cleanup: either clean in place with a whirl of soapy water in the pitcher immediately after using, or dishwasher safe. Hand washing increases the risk of injury from sharp blades and is therefore discouraged.

Versatility: Able to use for several tasks, can replace other appliances, e.g., food processor

A good warranty: the standard one year a must, for more heavy duty multi-year, is recommended

Why do heavy duty blenders work better than food processors? The narrow container, angled at the base creates a vortex which enables the food pieces to pass through the blades more frequently resulting in a smoother product.

Air Fryers

First released in 2010, and originated in Europe and Australia before moving into the Japanese and North American markets.

How do Air Fryers work?

- Operate by circulating hot air that contains fine oil droplets around food, working as a convection appliance
- Cook faster than an oven and produce crispy and crunchy exteriors
- Often for foods that are typically fried, such as French fries, or frozen breaded food

Benefits of using an Air Fryer

- Use 70-85% less oil than traditional frying
 - Although air fryers are a better alternative to conventional frying, limiting intake of fried food is the best option for optimum health
- Desserts made in air fryers are often still high in sugar and low in nutrients. Consume in moderation. Use MyPlate as a guideline to create a healthy meal.

Popular foods in an Air Fryer:

- French Fries
- Fish
- Breaded Appetizers
- Steak
- Chicken
- Potatoes
- Vegetables
- Desserts (brownies, cakes, churros)

Purchasing Guide

Size

3 quart fryer- one or two people
3-4 quart fryer-four or more people

Cost

\$40-\$100 for simple, compact models
\$250-\$400 for large, multifunctional models



Cleaning & Maintenance

- May vary from one fryer to another, always read instruction manual first
- Always unplug the appliance before cleaning
- Clean basket with hot, soapy water and a brush or sponge after each use, be careful not to damage Teflon coating
- Wipe exterior with a wet kitchen towel
- Use a hard-bristled brush to remove any food particles from the cooled heating element in the air fryer

Electric Pressure Cookers

Electric pressure cookers have evolved since they were first patented in 1991. There are currently three generations of electric pressure cookers with each generation more innovative than the previous. The first generation electric pressure cookers are seldom used in North America; however, in Asia, they are still popular for the cost-conscious consumer.

What's the Difference: Electric Pressure Cooker, Pressure Canner, and Multi-cooker?

- **Electric Pressure Cooker:** The two main types of pressure cookers are stovetop and electric cookers. Electric pressure cookers are stand-alone appliances only requiring an outlet to function correctly rather than heat from a stovetop. Stovetop pressure cookers need constant monitoring and adjustment for pressure, while electric pressure cookers simplify the process and maintain pressure without constant supervision. Pressure cookers reach temperatures above the boiling point of 212°F trapping steam inside the appliance. Due to the high amount of steam held in the pressure cooker, the temperature is higher, and the food is cooked more quickly than usual. A pressure cooker is NOT a pressure canner and should not be used to process food for preservation.
- **Pressure Canner:** Explicitly used for preserving low acid foods such as vegetables, meat, poultry or wild game in canning jars. A pressure canner reaches temperatures higher than a water bath canner to destroy harmful microorganisms and maintain consistent pressure over time, unlike a pressure cooker. There are two types of canners: Weighted Gauge and Dial Gauge
- **Multi-cooker (Example-Instant Pot®):** Typically a multi-cooker is an electric pressure cooker with additional functions such as a slow cooker, rice cooker, yogurt maker, used as a steamer, or sauté food.



Advantages & Disadvantages of Electric Pressure Cooker

Advantages

- **Quicker & Less Expensive Meals:** Inexpensive meats are tenderized and cooked faster in a pressure cooker
- **More Flavor:** pressure cooking creates intense flavors with less added fat and seasoning
- **Safe & Efficient**
- **Variety**
- **Energy & Time Saver:** Cooks food 50% faster than a conventional oven, and uses 50-75% less energy due to the shortened cooking time
- **More nutrients:** Food cooked under pressure retains more nutrients as fewer vitamins & minerals are washed away in boiling water

Disadvantages

- **Bulky:** Large, and takes up counter space
- **Price:** Ranges from \$50-\$250
- **Initial Education:** Read the instruction manual before use, and review food safety precautions
- **Unable to check on food:** For safety and cooking accuracy, pressure cookers lock, and food cannot be checked throughout the cooking period to watch for overcooking

Getting Started with an Electric Pressure Cooker/Multi-cooker

Not every electric pressure cooker and multi-cooker is the same. After purchasing, read the instruction manual and review before use:

- Parts of the appliance
- Features
- Settings
- Safety Procedures
- Cleaning

Electric Pressure Cooker Size Guide

3 Quart Pot: 1 Serving

6 Quart Pot: 4-6 Servings

8 Quart Pot: 6-8 Servings

Basic Parts of the Electric Pressure Cooker & Cleaning Recommendations

Always read the instruction manual as different brands and models may differ for care. Always cool down and unplug before cleaning.

Base Unit/Heating Element: Similar to a slow cooker, the heat is produced by the outermost part of the appliance. Never submerge in water for cleaning.

- ❖ Use a damp cloth to clean the outside of appliance as well as the lid.

Inner Pot: The inner pot fits inside the base unit, removable for washing, and is essential for cooking. Never operate an electric pressure cooker without the inner pot in place.

- ❖ Wash after every use as it directly touches food. Stainless steel may develop a bluish or rainbow color caused by salt or minerals found in food or water. A non-abrasive stainless steel cleaner will remove this, or white vinegar or lemon juice will also remove these marks. Do not use steel wool or it may scratch the pot. For hard stains, pour vinegar on the bottom of the inner pot and allow to sit for 5 minutes then rinse.

Silicon/Inner Ring: The inner ring seals in the pressure in the electric pressure cooker and fits inside the lid. The silicon ring stretches over time and according to the Instant Pot brand, should be replaced every 18-24 months with frequent use.

Tip: Keep two different rings, one for savory and one for sweet food as the inner ring absorbs food odors.

- ❖ Clean often. Wash by hand, or place in dishwasher. Once the sealing ring is completely dry, place back in the lid.

Floating Valve & Shield: The floating valve, when pushed up, indicates the electric pressure is sealed, and serves as a lock, preventing the lid from being opened and pressure released. The shield prevents food from getting trapped in the floating valve.

- ❖ Wipe clean with a damp cloth to remove any food particles and prevent food from getting stuck for future use.
- ❖ To clean the Anti-block shield hand wash in warm, soapy water and dry with a soft cloth. Place back on appliance once completely dry.

Pressure Release Handle: The handle on the lid is used to switch electric pressure cooker to quick release of pressure or natural release of pressure. Always be cautious when using the pressure release handle to avoid steam burns.

Settings

- Refer to owner's manual first
- The basic setting of an electric pressure cooker or multi-cooker indicate:
 - **Normal**-Indicates the multi-cooker is functioning as a slow cooker and not sealed or under pressure
 - **High**-Food is cooked at high pressure. 10.2-11.6 psi or 239°F-244°F*
 - **Low**-Food is cooked at low pressure. 5.8-7.2 psi or 229°F-233°F*
 - **Keep Warm**-Typically automatically turned on once finished cooking. Temperatures around 145-172°F*
 - **Manual**- Set a custom pressure cooking time. The timer does not start until pressure is reached

**The temperatures are based on the Instant Pot® Model and may not be applied to every brand of electric pressure cooker*

Releasing Pressure Safely

Recipes should indicate if the food needs a quick release (QR), natural release (NR), or a combination of quick and natural release (NR 10). If not, the third row provides examples of foods for each pressure release method.

Quick Release (QR)	Natural Release (NR)	Combination (NR 10)
Prevents Overcooking	Prevents steam from splattering	Extends cooking time, but prevents splattering
1-2 minutes to completely depressurize	10-30 minutes to completely depressurize	Wait 10-15 minutes, then quick release
Seafood, delicate vegetables such as broccoli, corn & bok choy	Broth, grains, beans, meats, stews, and soups	Stews, Chili, Combination Meals

Cooking with an Electric Pressure Cooker: Tips

- **Doubling the recipe does not mean doubling the cooking time.** The cooker will take longer to get to pressure. Generally, the pressure cooker should not be more than 2/3rd full.
- **When pressure cooking noodles, choose noodles that require at least 8 minutes of normal cooking time.** Cut the cooking time in half in an electric pressure cooker. Noodles that require less than 8 minutes do not hold up well under high temperatures.
 - *When combining noodles with other foods, put the dry noodles on top. Noodles submerged in liquid leads to a mushy texture.*
- **Cut food the same size for even cooking.**
- **Account for the time the pressure cooker takes to preheat and time for pressure to release when considering total cooking time.** Preheat and release time may add an extra 30-45 minutes for meal preparation.

- **Water or liquid must be present for food not to burn.** Because the electric pressure cooker depends on steam to work correctly, the liquid needs to be present. Typically ½ cup -1 cup of liquid.
 - *Hot liquid helps the electric pressure cooker come to pressure quicker than cold. If the recipe calls for cold liquid, follow the recipe and do not add hot liquid. The hot liquid will speed up cooking time and food may come out undercooked.*
- **Dried beans double in volume when cooked.** Avoid overflow by keeping beans less than half full in the inner pot.
 - *Tip: If the electric pressure cooker does overflow, just switch pressure release handle to natural release to prevent a mess.*
- **Foods such as applesauce, cranberries, pearled barley, oatmeal, and split peas may foam or froth during cooking and could potentially clog the vent.** Use extreme caution when cooking with these items and avoid overfilling.

Adjusting a Recipe for an Electric Pressure Cooker

- Cut cooking time by half
- Cut cooking liquid by half
- Avoid adding thickener until after cooking

Food Safety Reminders for an Electric Pressure Cooker

- Do not fill electric pressure cooker past 2/3rd full to prevent overfilling.
- Do not block the steam vent
- Make sure the steam release handle is set in the sealing position during pressure cooking
- Use a food thermometer to check the temperature of food after cooking to kill harmful bacteria
- Frozen food can be placed in an electric pressure cooker, but expect extended cooking time and the increased time for the cooker to come to pressure
- After cooking, place leftovers in a shallow container and refrigerate.
- Read recipes carefully; perishable foods should not be placed in an electric pressure cooker unless food is being prepared immediately. Recipes that indicate delayed cook for perishable food may not destroy harmful bacteria under pressure.
- **It is not recommended to use an electric pressure cooker to preserve food.** Even if there are recipes or features on the electric pressure canner, the USDA does not suggest using the cooker for pressure or steam canning. Scientifically tested recipes have not been developed for an electric pressure cooker. It is unknown if thermal processing work has been done to justify canning advice given by electric and multipurpose pressure cookers. Pressure canning in an electric pressure cooker is a serious health risk.

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Can I spiralize that?

Follow along to find out if a vegetable is "spiralizable."

