



## ***SOUTH CAROLINA FAMILY AND COMMUNITY LEADERS***

Affiliated with National Volunteer Outreach Network, Country Women's Council, U.S.A., Associated Country Women of the World and in partnership with Clemson University Cooperative Extension Service  
SCFCL website: <http://www.scfcl.com>

### **Leader Training Guide**

#### **Title: Cooking with an Electric Pressure Cooker**

#### **Objectives:**

The participants will be able to:

1. Demonstrate confidence in using electric pressure cookers.
2. Identify benefits and challenges of electric pressure cookers.
3. Learn general guidelines for safe and successful pressure cooking.

#### **Lesson Overview/Introduction:**

Electric pressure cookers have become increasingly popular in recent years, offering convenience, versatility, and safety features desired by consumers. There are a variety of companies producing electric pressure cookers, including Instant Pot, Ninja, and Cuisinart. Within each brand, a range of models and sizes are available. Nearly all electronic pressure cooker models include additional functions such as slow-cooking, searing, sautéing, simmering, steaming, yogurt making, and warming. Some are even equipped with smart Wi-Fi settings.

Benefits of pressure cooking include time savings, energy savings, and less nutrients lost. After plugging in the electric pressure cooker and setting the pressure along with time, your work is done. The electric pressure cooker will automatically regulate the pressure for the set amount of time and then decrease the pressure on its own. However, many consumers have concerns when considering the safety of pressure cooking. Safety can be discussed in two categories here: safety features of the pressure cooker itself and food safety.

There are also concerns with learning to operate electric pressure cookers and use the many functions available. Confidence in using an electric pressure cooker comes with an understanding of how the appliance works and practicing a variety of recipes to learn which work well for your desired outcome.

This lesson will focus on learning what electric pressure cookers will and will not do, general types of electric pressure cookers available, general tips for cooking with an electric pressure cooker, and food safety.

#### **Lesson:**

Electric pressure cookers are available by several kitchen appliance manufacturers and vary in the following ways:

- Size, often ranging from 3-quart to 8-quart
- Number of functions or cooking programs, including pressure cooker, slow cooker, sauté, steamer, yogurt maker, and steamer

The more features included with a model, the more detailed the instrument panel will be with pre-set pressure and cook times, allowing you to press only a button or two to begin cooking. You will also have the option to set the pressure (either high or low) and the cook time, if one of the pre-set options does not suit for the product you plan to cook. *For examples, the instructor may want to have internet links for a basic model like the Cuisinart CPC 600N-1 that has a simple instrument panel with options for high or low pressure, brown, sauté, simmer, and time to compare to a more advanced model like the Instant Pot Duo 9 in 1 model that has the high/low pressure setting, time, Sterilizer, Slow Cooker, Rice Cooker, Steamer, Sauté, Yogurt Maker, and Warmer, 6 Quart, and 15 One-Touch Programs.* When shopping for an electric pressure cooker, think about what size you need, or how many people usually eat meals at home. Also consider what you plan to use the electric pressure cooker for and how many features you wish to try. Price can range from approximately \$60 to \$250 depending on the extra features.

Pressure cooking takes about 1/3 of the time of conventional cooking. When looking for electric pressure cooker information, you may find a variety of cooking times for foods such as poultry, meat, and fish. Cooking time will vary depending on the size and model of the pressure cooker, amount of liquid, size of the raw product, pressure release used, and other factors. Each modern electric pressure cooker will come with a detailed user's manual that should be read before operating the appliance. This manual will provide guidance on settings and buttons specific to each model. Most units will have a high and a low pressure setting and adjustable timer.

After choosing an electric pressure cooker brand and model to meet your needs, choosing a recipe will be the next task. There are countless cookbooks and online recipes specific to electric pressure cookers. Experimenting with recipes and learning which foods prepared in the electric pressure cooker meet your personal preferences and tastes may take some time. Textures of the food may be different than when cooked on traditional kitchen appliances. After you choose a recipe, add the ingredients to the electric multi-cooker, and secure the lid, you may choose to use a pre-set cook time and pressure by pressing the appropriate button on the instrument panel, or you may set your own time and pressure. Once this is done, the electric pressure cooker does the rest. When researching recipes, you will find that some discuss the time it takes to build pressure, and some do not. In general, this process will take 10-15 minutes and will vary depending on the amount of food and cooking liquid in the cooker. This time is in excess of the cooking time and should be taken into consideration when trying to have a meal prepared at a specific time. At any time during the cooking cycle, the Cancel button can be pressed to stop the cooking process. However, pressing cancel will not immediately release pressure. Some electric pressure cooker models come with a Delay Start feature. An important consideration when using this feature is keeping food safe. Keep perishable foods refrigerated until preparation and/or cooking.

When using the electric pressure cooker, there will be the option to allow pressure to release naturally, or to manually release pressure (quick release) by turning a valve. The natural release of pressure is recommended with most meats and will allow pressure to be release slowly. Many times, the pressure release is a part of the recipe and included in the

cook time. Take care when using a manual release of pressure to avoid the hot steam that will escape the open valve. With either pressure release, hot steam can burn anyone close by and may damage cabinets over time. Most models will have a float valve in the lid that will indicate whether pressure is built in the cooker or has been fully released. Make sure all pressure is released before opening the lid. Most modern electric pressure cookers have locking lids that cannot be opened when there is pressure in the unit. When removing the lid, take care and work slowly; it may stick a little and there will be more hot steam and condensation.

Many people may envision pressure cooking stories that have gone wrong and resulted with food exploded all over the kitchen ceiling. With the added safety features and by following a few general guidelines, this accident is non-existent with modern electric pressure cooker models. A few general tips to follow when using the electric pressure cooker include the following:

- Never overfill the pressure cooker. In general, do not fill the pressure cooker more than 2/3 full. For foods that will expand while cooking, like rice, beans, grains, and soups, avoid filling the pressure cooker more than 1/2 full.
- For foods that tend to foam, froth, and sputter like applesauce, cranberries, noodles and spaghetti take extra caution if cooking in the electric pressure cooker and choose a recipe from a reputable source. You may also choose to avoid using the electric pressure cooker for these types of foods.
- Regularly inspect the sealing ring and overpressure plug. If the electric pressure cooker is not coming up to pressure, it may be an indication that the sealing ring needs to be replaced.
- Check the vent pipe each time before closing the cooker. The vent pipe should be clear and free from any food particles. A blocked vent pipe may result in pressure building to unsafe levels.
- Double check that pressure is released before opening the lid. Most modern electric pressure cookers have a safety feature that keeps the lid automatically locked until pressure is low enough to safely open the lid.
- Always use cooking liquid. Water, bouillon, fruit juices or any other liquid will work. Much less liquid will be needed when compared to a regular recipe, but the electric pressure cooker should not cook dry.
- Always read the instructions that came with the model of pressure cooker you are using.

Often, the most important step regarding food safety is left off of recipes – the use of a food thermometer to ensure food has reached the minimal internal temperature for safety. Using a food thermometer is the only reliable way to ensure the safety of cooked products. Insert the food thermometer in the thickest part of the food, making sure not to touch bone, fat or gristle. The chart below shows the minimum internal temperatures that should be reached, according to the USDA.

Product	Minimum Internal Temperature & Rest Time
<b>Beef, Pork, Veal &amp; Lamb</b> Steaks, chops, roasts	145 °F (62.8 °C) and allow to rest for at least 3 minutes
<b>Ground meats</b>	160 °F (71.1 °C)
<b>Ham</b> , fresh or smoked (uncooked)	145 °F (62.8 °C) and allow to rest for at least 3 minutes
<b>Fully Cooked Ham</b> (to reheat)	Reheat cooked hams packaged in USDA-inspected plants to 140 °F (60 °C) and all others to 165 °F (73.9 °C).

Product	Minimum Internal Temperature
<b>All Poultry</b> (breasts, whole bird, legs, thighs, wings, ground poultry, giblets, and stuffing)	165 °F (73.9 °C)
<b>Eggs</b>	160 °F (71.1 °C)
<b>Fish &amp; Shellfish</b>	145 °F (62.8 °C)
<b>Leftovers</b>	165 °F (73.9 °C)
<b>Casseroles</b>	165 °F (73.9 °C)

Other steps that are important to follow whether using an electric pressure cooker or other cooking method to prevent foodborne illness include the following:

- Wash your hands with soap and warm water for 20 seconds before cooking and after handling raw meat or poultry
- Place leftovers in shallow containers and refrigerate or freeze immediately. Throw away any cooked, perishable food that has been sitting out for more than two hours.

**Suggested Materials:** If the instructor has an electric pressure cooker, participants will likely benefit from seeing the unit. Also having a cookbook specific to electric pressure cookers or recipes gathered from online sites may be helpful to walk through.

If the instructor plans to cook during the lesson, having basic kitchen supplies and a handwashing station will be needed.

### Suggested Activities:

If an electric pressure cooker is available, preparing food and allowing participants to see the unit and how it works would be helpful. A quick and easy recipe to prepare and allow for taste tests is below:

#### Pressure Cooker Sweet BBQ Meatballs

Cook Time	Additional Time	Total Time
5 minutes	20 minutes	25 minutes

#### INGREDIENTS

- 1 bag fully cooked frozen meatballs
- 18 oz BBQ Sauce
- 18 oz grape jelly

## INSTRUCTIONS

1. Wash hands with soap and water.
2. Add 1 cup water to pressure cooking pot.
3. Place wire rack or steamer pot in the pressure-cooking pot and add meatballs.
4. Pressure cook for 5 minutes on high pressure.
5. When timer beeps, release the pressure with a quick pressure release. Remove meatballs from the pressure-cooking pot.
6. Ensure that the internal temperature of the meatballs has reached 160°F.

Discard cooking water and add BBQ sauce and grape jelly to pressure cooking pot. Select Sauté and cook, stirring frequently, until jelly is melted, and the sauce is smooth. Add meatballs and stir to combine. Switch to keep warm setting until ready to serve.

*Handouts are attached for each participant*



**Lesson Summary:** Modern electric pressure cookers can be a useful appliance in the kitchen. Saving time and energy use in addition to less nutrients lost during cooking are added benefits to pressure cooking. Following the manufacturer's recommendations for specific units, paired with food safety practices will result in an enjoyable experience.

### ***Other information/Resources:***

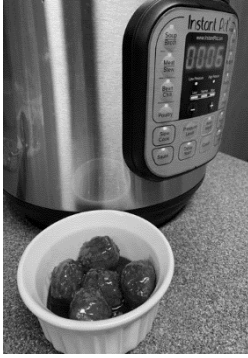
Foodsafety.gov

Utah State Extension Service, Meals in Minutes Using a Pressure Cooker  
<https://extension.usu.edu/utah/files-ou/MealsinMinutes.pdf>

Iowa State University, Electric Pressure Cookers blog,  
<https://blogs.extension.iastate.edu/answerline/2016/11/21/electric-pressure-cookers/>

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## Pressure Cooker Sweet BBQ Meatballs

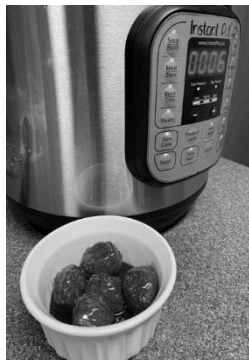
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