

Food \$ense



Wisconsin Nutrition Education Program

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**UW
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If You Can't Stand the Heat. . . Use a Microwave!

The microwave oven is one of the greatest inventions of the 20th Century; over 90% of the homes in America have one. A microwave cooks food faster than a regular oven by using short, high-frequency energy waves similar to TV and radio waves. These waves are created by a magnetron, usually located in the top of the oven. These waves cause molecules inside the food to move rapidly and create heat, much like when you rub your hands together rapidly. This is the heat that cooks the food.

Since microwaves enter the food to a limited depth, food should be arranged so the waves strike it from all sides. If there are a number of pieces to cook at once, arrange the pieces in a circle to create more outside pieces.

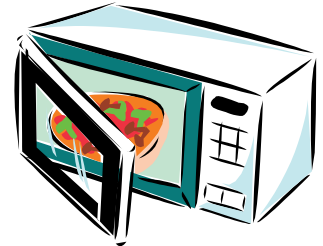
Pieces of food that are the same size and shape heat more evenly. Place thin pieces toward the center of the dish and thicker pieces toward the edge.

Foods at room temperature take less time to cook than foods at refrigerator temperatures or frozen foods.

A cover on foods helps reduce the moisture loss that occurs with cooking. A casserole lid works best, but microwave-safe plastic wrap or wax paper will help prevent splattering and heat loss also.



Stirring is usually necessary during microwave cooking. Bring the cooked outside edges toward the center and the less cooked center portions towards the outside.



Cooking time is given as a time range, such as "cook 10 to 12 minutes." Always cook food for the minimum cooking time given and check for doneness. You can add time to an undercooked food, but once the food is overcooked, nothing can be done. The same tests for doneness used in regular cooking can be used for microwave cooking.

Most foods will continue to cook after the microwave is turned off - the molecules are still moving inside the food! Standing time is necessary to allow foods to complete cooking in the center without overcooking on the edges.

Casseroles cook well in the microwave. Select a dish that is large enough to allow for stirring and stir occasionally during cooking. To keep crumb toppings crisp, sprinkle on just before standing time.

The cookbook that came with your microwave will be a handy resource for recipes and tips. You might want to check out the recipe book section in your local library for more ideas on using this handy appliance.

Safe Microwave Cooking

- Never operate an empty microwave.
- Use only heat proof glass, paper, ceramic, or microwave-safe plastic containers in microwave cooking because microwaves pass through these materials. They can become hot from the heat of the food cooking inside; use potholders if necessary.
- Plastic containers (margarine tubs, etc. not labeled as microwave-safe) should not be used in a microwave because they can be melted by the heat of the food inside and dangerous chemicals can leak into the food. Foam cups or plates are not recommended.
- Generally, metal pans or aluminum foil should not be used in a microwave, as the microwaves are reflected off these materials, causing the food to cook unevenly and possibly damaging the oven.
- Never use thin plastic storage bags, brown paper or plastic grocery bags, or newspaper in the microwave.
- Use only microwave-safe plastic wrap or microwave-safe paper towels. The wrap should not touch the food; leave a small opening at one corner to prevent steam build up.
- The skin on some foods will cause steam to build up during cooking and the food may burst. To prevent this, pierce, cut or peel foods like potatoes and egg yolks.
- Stir or rotate food half-way through microwaving to get rid of cold spots where harmful bacteria can live.
- Partially cooking food does not destroy bacteria. If not cooking food completely in the microwave, always transfer food to the stove, oven, or grill immediately to complete cooking. Never partially cook food and store it for later use.
- When microwaving popcorn, stay with the oven and follow the directions; heat buildup or over-cooking can cause a fire.



How to Buy a Microwave Oven

In this fast paced world, having a microwave oven is an essential kitchen appliance for any household. Besides asking how much you will be using your microwave, remember to buy the highest capacity and wattage you will need within your price range.



1. If you will be using your microwave primarily for melting, reheating, or making popcorn, you won't need a lot of fancy features, so don't pay for them! If you plan to prepare entire meals, you may want a larger capacity microwave with some programmable features. A higher wattage will cook foods faster. Most microwaves have power that falls between 600 to 1200 watts. Most recipes written for the microwave usually specify power of at least **800** watts so the foods cook evenly.
2. The size ranges for microwaves include compact to full size, in 0.5 to 2.0 cubic feet in capacity. The larger your family, the larger your microwave should be. If you cook casseroles or lasagnas, go for a bigger oven (1.2 cubic feet or more) and make sure that the dishes you will be using will fit inside with room to spare.
3. Some features help take the guesswork out of preparing meals and reheating snacks. Look for automatic defrost and preprogrammed settings. Sensors that calculate cooking time are handy, as well as a turntable that is easy to remove and clean.

Always remember to show inexperienced family members how to use the microwave safely and that small children should be supervised while using any electrical appliance.

Nutrient Know-How

No matter how careful you are, food preparation of any kind destroys some nutrients. Water soluble vitamins, such as vitamin C and the B vitamins, are easily destroyed. Fat soluble vitamins, A, D, E and K, are more stable. There are ways to save the vitamins in your foods. To avoid losing nutrients, be careful with:

Water. Soaking food in water dissolves water-soluble vitamins. Use as small amount of water as possible; steam vegetables in small batches for best quality.

Heat. Heating food causes nutrient loss, especially vitamin C. Avoid overcooking. Cook vegetables until just tender.

Light. Milk is an excellent source of riboflavin; but if it is allowed to stand open or is exposed to light, riboflavin can be destroyed.

Air. Exposure to air destroys some vitamins. Cut and cook vegetables in pieces that are as large as possible. Leave edible skins on fruits and vegetables. Store foods with proper covers.

To retain more nutrients in your food, you may want to consider microwave cooking. For several reasons, more vitamins are saved with microwave cooking than with most other cooking methods: very short cooking time, covered cooking, and little or no cooking water.

Baked Potatoes Primavera

- 4 medium potatoes
- 4 cups frozen mixed vegetables
- 1 ¼ cups nonfat sour cream ½ teaspoon dried basil
- ½ teaspoon dried oregano black pepper to taste

1. Pierce each potato several times with a fork. Microwave on high until tender, about 3-4 minutes per potato.
2. Steam mixed vegetables until hot.
3. Mix sour cream with herbs and pepper.
4. Split potatoes in center and fill with veggies; top with sour cream and serve hot.

Source: Food and Health Communications



Dear Sue Keeney ...

Meet Sue Keeney--your source of research-based information about nutrition and health! Readers of all ages like Sue's practical tips on eating for good health, stretching the food dollar & more!

Dear Sue Keeney,
Should I be concerned about radiation from my microwave oven?? I have children and want to be safe.

Minnie Vandriver

Dear Minnie,
Microwaves should not be confused with x-rays, which are more powerful. A federal standard limits the amount of microwaves that can leak from an oven throughout its lifetime to a level far below the amount known to cause harm. Microwave energy decreases greatly as you move away from the source, so it's a good idea not to stand directly against an oven while it's operating.

There is little cause for concern about microwaves leaking unless the door hinges, latch or seals are damaged. Don't operate an oven if the door does not close firmly, or is damaged.

A bigger safety concern is the risk of being burned by steam or hot dishes; vent cooking lids or wrap, and use pot holders!

Source: U. S. Food and Drug Administration



GOAL: What is one idea from this newsletter that you will use to save time in the kitchen? Who can help you do that?

Get Out of the Kitchen!

Save time with these tips, so you can get out and be active this summer:

- Prepare ingredients for the next day the night before
- Cook twice the amount and freeze half for a quick meal another day
- Make meals quick and easy: tuna sandwiches, apple slices and milk
- Freeze large amounts of chopped onions and peppers to use in recipes
- When buying veggies, clean them and cut them up and put them in zip lock baggies to use for meals during the week
- Prepare easy meals ahead of time like cold macaroni salads and cut up fruit
- Make a game of getting the meal cleaned up **by everyone** and timing it, to get outside and do something physical together as a family with the extra time!
- Use the microwave for faster cooking
- Rinse and soak dishes you cannot wash right away (dried-on food takes longer to clean)
- Use a crock-pot so a meal is ready when you get home



Safety First for Kids

Is the microwave oven a safe appliance for school-age children? The answer is **YES!** Companies that make microwave ovens must follow strict safety standards set by the United States government.

Of course, like any other household cooking appliance, a microwave oven needs to be used according to directions. You must be very careful when dishes get hot from the food that is cooking in them. Keep pot holders close at hand and be extremely cautious around steam. It can burn you very quickly!

Sweet Acorn Squash

- 2 acorn squash ½ cup orange juice
- 1 teaspoon cinnamon ¼ teaspoon nutmeg

1. Pierce the squash with a fork. Put each squash in the microwave. Heat for 1 ½ minutes on high. This will soften the squash, and make it easier to cut.
2. Cut each squash in half. Remove the seeds and loose fibers in the middle. Place squash in a glass pie plate, cut side of the squash face-up.
3. Pour 2 tablespoons of juice into each half of squash. Spread evenly on inside of squash and sprinkle with seasonings.
4. Microwave on high for about 10 minutes or until tender.

Source: Pennsylvania Nutrition Education Network

WNEP education is supported by the USDA Food Stamp Program, UW-Extension and local partners. Food stamps can help provide a healthy diet. To find out more about food stamps, call 920.386.3760. To learn more about the Wisconsin Nutrition Education Program in Columbia or Dodge County, please contact:



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