LESSON 5
USING YOUR MICROWAVE OVEN
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Revised December 1984

MICROWAVING MILK, EGGS AND CHEESE: SAUCES AND CASSEROLES, AND BREADS AND CEREALS

This lesson focuses on the principles involved in microwaving milk, eggs, and cheese; sauces and casseroles; breads and cereals. As in lessons 3 and 4, recipes are given to illustrate a principle.

MILK, EGGS, AND CHEESE

Protein Foods Are Heat Sensitive. The cooking of protein products can be slowed by cooking with the defrost cycle or a lower power setting.

Milk

When using milk in creamed soups, scalloped potatoes, and the like, milk may foam and boil over. Make certain the container is large enough to handle this.

When cooking homemade soup, you will probably use 100% power. However, when heating canned soups diluted with milk, microwave at 50% power to prevent overcooking. The temperature probe is convenient to use in heating milk (such as for scalding, 185 degrees F.)

LEARNING ACTIVITY

Prepare a dish containing milk using a recipe in your microwave oven cookbook. Or try the following recipe:

Cream of Potato Soup

4 strips bacon
3 cups potatoes, cut into 1/2 inch cubes
1/4 cup chopped onion
1/4 cup chopped celery
1/2 cup water
1 teaspoon salt
2 tablespoons all-purpose flour
1-1/2 cups milk
1 cup chicken broth
1 tablespoon chopped parsley

1. Microwave bacon on HIGH for 3 to 3-1/2 minutes or until bacon is crisp. Crumble and set aside.
2. Combine potatoes, onions, celery, water, and salt in a 2-quart casserole. Cover with a tight-fitting lid or plastic wrap. Microwave on HIGH for 10 to 12 minutes or until vegetables are tender.
3. Mix flour, milk, chicken broth, and parsley until smooth. Stir into potatoes. Microwave uncovered on HIGH for 15 to 20 minutes or until thickened. Stir occasionally during cooking.
4. Garnish with bacon.

4 to 6 servings

If you have a temperature probe, set it for 150 to 160 degrees.

Source: Used with permission of The Tappan Appliance Division

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In the microwave oven, egg yolk which contains more fat than egg white attracts the microwaves first. If you microwave an egg until the white is firm, the yolk will toughen. Standing time is necessary to cook the white completely without hardening the yolk.

Remember to puncture the membrane of the yolk before microwaving. It's the same principle as the baked potato—building up of steam pressure. DO NOT TRY TO MICROWAVE EGGS IN THE SHELL. Cooking eggs in the shell causes building up of pressure, too. For recipes requiring hard-cooked eggs, use conventional methods of cooking rather than the microwave oven.

The heating pattern of your oven may affect the way eggs cook. If your oven has an uneven pattern, you may have difficulty with poached or shirred eggs and omelet mixtures. Experiment with your oven. Use 50% power setting to prepare eggs in these ways.

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**LEARNING ACTIVITY**

Prepare an egg dish using a recipe from your microwave oven cookbook. Or try the following recipe:

**Brunch Special**

1 package (12 ounces) frozen hash brown potatoes
1/3 cup sour cream
1/3 cup milk
1/2 teaspoon salt
1 tablespoon snipped chives
4 slices ham
4 eggs

1. Place potatoes in 2-quart (8 x 8 inches) glass baking dish. Cover. Microwave on HIGH for 6 to 7 minutes or until partly cooked.
2. Blend in sour cream, milk, salt, and chives. Arrange ham slices near center of dish.
3. Make two hollows in potatoes on each side of ham. Break egg into each indentation; replace cover.
4. Microwave on 70% power for 6 to 8 minutes or until eggs are cooked to desired doneness.
5. Let stand covered for 2 minutes before serving.

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**Cheese**

In microwaving, cheese melts quickly and toughens easily. Natural hard cheese becomes stringy if overcooked. Processed and softer cheese does not become stringy, but will toughen if cooked too long. Cheese should therefore be cooked at a medium power setting, added to the food toward the end of the cooking period, or placed beneath other foods in a casserole. If a dish calls for grated cheese on top, sprinkle it on when only standing time is left. The heat from the cooked food will be sufficient to melt the cheese.

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**SAUCES, PUDDINGS, AND CASSEROLES**

**Sauces and Puddings**

Sauces and puddings can be measured, mixed, and cooked in the same utensil. For a 4-serving portion, use a 4-cup glass measuring cup. In microwaving sauces and puddings you will not have to stir them constantly. And you won't have to worry about lumps. Stir several times as the mixture begins to thicken.

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**LEARNING ACTIVITY**

Prepare a sauce and/or pudding using a recipe in your microwave oven cookbook. Or try this recipe:

**Easy Pudding**

1 package (3-1/2 ounces) pudding and pie filling mix (not instant)
2 cups milk
1. Pour package of pudding mix into a 1-quart glass measuring cup. Stir in enough milk to dissolve pudding.

2. Stir in remaining milk.

3. Microwave on HIGH for 2 minutes. Stir.

4. Microwave on HIGH for 3 to 4 minutes longer or until pudding is thickened. Stir once every minute.

4 servings

Casseroles

Most casseroles are microwaved on HIGH. Exceptions might be those with considerable amounts of cheese. Toppings should be added toward the end of cooking, or when the cooking is completed. For example, crumb or chip-type toppings may be added during the last few minutes of cooking or after the casserole has cooked and just before serving.

Using A Temperature Probe. To avoid damaging the probe, insert it into completely defrosted foods. Heat precooked foods to 150 to 160 degrees. The probe should be placed in the center of the casserole.

BREADS AND CEREALS

Breads

A brief warming in the microwave oven gives tasty rolls, muffins, and other bread products. Usually 5 to 10 seconds per roll or serving is adequate time to warm bread products. Wrap these products in paper napkin or towel to absorb moisture during the warming. Older breads can be freshened by heating them in plastic film to retain moisture. Sprinkling with a few drops of water before wrapping may help. Rolls with moist filling or topping heat faster than others. Raisins and icing become very hot. Frozen rolls defrost and heat at the same time, taking only 15 seconds or so for each roll. Remember, overheating results in tough products.

To make your own bread cubes or crumbs, heat 2 slices of bread on a paper towel for 1-1/2 minutes, turning over once. After the bread cools for a minute or two, it is dry and crisp enough to use.

It is possible to bake quick and yeast breads in the microwave oven, but unless you have a microwave/convection oven you may prefer the texture and appearance of bread products when they are baked conventionally. You may also find little time advantage in using the microwave oven for baking bread products.

Yeast bread dough can be proofed (raised) in the microwave oven several different ways. One way is to use the oven as an "incubator" by bringing 2 to 3 cups of water to a boil. Set the bowl of dough alongside the hot water and close the door. The heat and moisture from the water create an ideal atmosphere for the yeast. The time required for the dough to rise is about the same as if it were in any warm place.

If your microwave oven has variable power settings, a quicker way of proofing is possible. One method is to place dough in the oven with about 3 cups of boiling water. Set the oven at the lowest power setting. Turn oven "on." Unshaped dough takes about 15 minutes to rise; rolls or 2 shaped loaves about 7 to 8 minutes. Use caution in proofing yeast bread to avoid killing the yeast.

Learning Activity

Proof yeast bread in your microwave oven, following the instructions in your microwave cookbook or the above directions.
Cereals

Cereals, especially the quick-cooking kinds, are very simple to cook in the microwave oven. As with all high-liquid foods, use a large enough container to prevent boilovers. For even heating, stir the cereal once halfway through the cooking. With microwaving, you'll have no messy cooking pan to clean.

**LEARNING ACTIVITY**

a) Look for microwave cooking instructions on packages of cereal.
b) Cook at least one cereal using the microwave oven. Here is one suggested recipe:

**Quick Cooking Oatmeal**

3/4 cup water  
1/3 cup quick-cooking oats  
1/8 teaspoon salt

1. Measure water, cereal, and salt into cereal bowl. Mix well.
2. Microwave on HIGH uncovered for 1-1/4 to 1-3/4 minutes. Stir. Let stand, covered, for 1 to 2 minutes before serving.

1 serving

For two servings, microwave two individual bowls at one time on HIGH for 2 to 2-1/2 minutes.

**Cakes and Pies**

It is possible to prepare cakes and pies in the microwave oven. However the products will differ in appearance and texture from those conventionally baked. If you want to experiment with these products, start with the directions in your microwave cookbook. Some cake mixes come with microwave cooking instructions or information about where to obtain such cooking instructions.

Acknowledgement: Subject matter in this publication was adapted from publications of the Florida, Missouri, Ohio, and New York Cooperative Extension Services and the Whirlpool Corporation.

**LET'S REVIEW**

As you studied this lesson, you should have discovered the answers to the following questions:

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<th>True</th>
<th>False</th>
<th>Check the best response</th>
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<tr>
<td></td>
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<td>1. When heating canned cream of tomato soup diluted with milk, the best microwave power setting is HIGH.</td>
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<td>2. In cooking eggs in the microwave oven, it is recommended that you use a setting lower than HIGH.</td>
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<td>3. Muffins should be heated for 1 minute per muffin.</td>
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