## **Ingredient Substitutions**

The substituted food may not perform exactly as the original food. Each ingredient has specific functions in a recipe, and a substitute may alter the flavor, color, texture, or volume, but still result in an acceptable product.

Ingredient	Amount	Substitutes
Allspice	l teaspoon	• 1/2 teaspoon cinnamon and 1/2 teaspoon ground cloves
Apple pie spice	l teaspoon	<ul> <li>I/2 teaspoon cinnamon,</li> <li>I/4 teaspoon nutmeg, and</li> <li>I/8 teaspoon cardamom</li> </ul>
Arrowroot starch	I I/2 teaspoon	<ul><li>I tablespoon flour</li><li>I I/2 teaspoons cornstarch</li></ul>
Baking powder	l teaspoon	<ul> <li>1/4 teaspoon baking soda and 5/8 teaspoon cream of tartar</li> <li>1/4 teaspoon baking soda and 1/2 cup sour milk or buttermilk (decrease liquid called for in recipe by 1/2 cup)</li> <li>1/4 teaspoon baking soda and 1/2 teaspoon lemon juice or vinegar used with sweet milk to make 1/2 cup (decrease liquid called for in recipe by 1/2 cup)</li> </ul>
Bay leaf	I whole	• 1/4 teaspoon crushed
Beau Monde seasoning	l teaspoon	<ul> <li>I teaspoon seasoning or seasoned salt</li> <li>I/2 teaspoon table salt</li> <li>I/2 teaspoon Mei Yen seasoning</li> </ul>
Brandy	I/4 cup	<ul> <li>I teaspoon brandy extract plus enough water or liquid called for in recipe to make 1/4 cup</li> </ul>
Broth, beef or chicken	I cup	<ul> <li>I bouillon cube dissolved in I cup boiling water</li> <li>I envelope powdered broth base dissolved in I cup boiling water</li> <li>I teaspoon powdered broth base dissolved in I cup boiling water</li> </ul>
Butter	І сир	<ul> <li>7/8 to 1 cup hydrogenated fat and 1/2 teaspoon salt</li> <li>7/8 cup lard plus 1/2 teaspoon salt</li> <li>1 cup margarine</li> </ul>
Chicken stock base, instant	1/2 teaspoons	• I chicken bouillon cube
Chicken stock base, instant	l tablespoon dissolved in l cup water	• I cup canned or homemade chicken broth or chicken stock
Chili sauce	l cup	• I cup tomato sauce, 1/4 cup brown sugar, 2 tablespoons vinegar, 1/4 teaspoon cinnamon, dash of ground cloves, and dash of allspice
Chives, finely chopped	2 teaspoons	• 2 teaspoons green onion tops, finely chopped

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X	Ingredient	Amount	Substitutes
	Chocolate chips, semisweet	I ounce	• I ounce sweet cooking chocolate
	Chocolate, semisweet	I 2/3 ounces	• I ounce unsweetened chocolate and 4 teaspoons sugar
	Chocolate, semisweet chips, melted	6-ounce package	• 2 squares unsweetened chocolate, 2 tablespoons shortening, and 1/2 cup sugar
	Chocolate, unsweetened	l square or l ounce	• 3 tablespoons cocoa and I tablespoon fat
	Сосоа	1/4 cup or 4 tablespoons	• I ounce (square) chocolate (decrease fat called for in recipe by I/2 tablespoon)
	Coconut	l tablespoon grated, dry	• 1 1/2 tablespoons fresh grated coconut
	Coconut cream	l cup	• I cup whipping cream
	Coconut milk	l cup	• I cup whole or 2% milk
	Cornmeal, self-rising	l cup	<ul> <li>7/8 cup regular cornmeal,</li> <li>I 1/2 tablespoons baking powder,</li> <li>and 1/2 teaspoon salt</li> </ul>
	Corn syrup	l cup	<ul> <li>I cup sugar and I/4 cup liquid (use whatever liquid is called for in the recipe)</li> <li>I cup honey</li> </ul>
	Cornstarch (for thickening)	l tablespoon	<ul> <li>2 tablespoons all-purpose flour</li> <li>2 tablespoons granulated tapioca</li> </ul>
×	Cracker crumbs	3/4 cup	• I cup dry bread crumbs
	Cream, half-and-half	I cup	<ul> <li>7/8 cup milk and 1/2 tablespoon butter or margarine</li> </ul>
			<ul> <li>I cup evaporated milk, undiluted</li> <li>I/2 cup coffee cream plus</li> <li>I/2 cup milk</li> </ul>
	Cream, heavy (36% to 40% fat)	l cup	• 3/4 cup milk and 1/3 cup butter or margarine (for use in cooking or baking)
	Cream, light (18% to 20% fat)	I cup	<ul> <li>3/4 cup milk and 3 tablespoons butter or margarine (for use in cooking or baking)</li> <li>I cup evaporated milk, undiluted</li> </ul>
	Cream,	Any amount	Chill 13-ounce can of evaporated
	whipped	anount	milk for 12 hours. Add I teaspoon lemon juice. Whip until stiff.
	Dill plant, fresh or dried	3 heads	• I tablespoon dill seed

Ingredient	Amount	Substitutes		Ing
Egg	I whole (3 tablespoons)	<ul> <li>3 tablespoons and I teaspoon thawed frozen egg</li> <li>2 1/2 tablespoons sifted, dry</li> </ul>		Flou
		whole egg powder and 2 1/2 tablespoons warm water • 2 yolks and 1 tablespoon water		Flou whe
		<ul> <li>(in cookies)</li> <li>2 yolks (in custards, cream fillings,</li> </ul>		6
		and similar mixtures)		Gar
		<ul> <li>Soften I tablespoon unflavored gelatin in 3 tablespoons cold water; add 3 teaspoons boiling water; cool and beat until frothy; add to recipe (reduce other</li> </ul>		Gela
		liquid by 2 tablespoons) <ul> <li>I/4 cup commercial egg substitute</li> </ul>		flavo
Egg white	l white (2 tablespoons)	2 tablespoons thawed frozen egg white		
		<ul> <li>2 teaspoons sifted, dry egg white powder and 2 tablespoons lukewarm water</li> </ul>		Her
Egg yolk	l yolk (1 1/2 teaspoons)	• 2 tablespoons sifted dry egg yolk powder and 2 teaspoons water		Hor
		<ul> <li>I 1/3 tablespoons thawed frozen egg yolk</li> </ul>		Hor
Flour, all-purpose (for thickening)	l tablespoon	<ul> <li>I 1/2 teaspoons cornstarch, arrowroot starch, potato starch, or rice starch</li> </ul>		Ket
		<ul> <li>I tablespoon granular tapioca</li> <li>I tablespoon waxy rice flour</li> </ul>		Lem
		• I tablespoon waxy corn flour		Lem
		<ul> <li>2 tablespoons browned flour</li> <li>1 1/2 tablespoons whole wheat flour and 1/2 tablespoon all purpose flour</li> </ul>		Lem drie
Flour, all-purpose	I cup, sifted	• I cup and 2 tablespoons cake flour		Mac
Note: Specialty flours added to yeast bread		<ul> <li>I cup minus 2 tablespoons unsifted all-purpose flour</li> </ul>		cups
recipes will result in a		<ul> <li>I I/2 cup bread crumbs</li> <li>I cup rolled oats</li> </ul>	K	Мар
reduced volume and heavier product		<ul> <li>I/3 cup cornmeal or soybean flour and 2/3 cup all-purpose flour</li> </ul>		Map (gra pacl
		<ul> <li>I/2 cup cornmeal, bran, rice flour, rye flour, or whole wheat flour and I/2 cup all-purpose flour</li> </ul>		Мар
		<ul> <li>3/4 cup whole wheat flour or bran flour and 1/4 cup all-purpose flour</li> </ul>		Mar mini
		• I cup rye or rice flour		May (for
		• 1/4 cup soybean flour and 3/4 cup all-purpose flour		sala dres
Flour, cake	I cup sifted	• I cup minus 2 tablespoons sifted all-purpose flour		

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Ingredient	Amount	Substitutes		
Flour, self-rising	I cup	• I cup minus 2 teaspoons all-purpose flour, I 1/2 teaspoons baking powder, and I/2 teaspoon salt		
Flour, whole wheat	Any amount	• Substitute whole wheat flour for 1/4 to 1/2 of the white flour called for in a recipe		
Garlic	I clove, small	<ul> <li>1/8 teaspoon garlic powder or instant minced garlic</li> <li>1/2–1 teaspoon garlic salt (reduce amount of salt called for in recipe)</li> </ul>		
Gelatin, flavored	3-ounce package	<ul> <li>I tablespoon plain gelatin and</li> <li>2 cups fruit juice</li> </ul>		
Ginger	1/8 teaspoon, powdered	<ul> <li>I tablespoon candied ginger rinsed in water to remove sugar and finely cut</li> <li>I tablespoon raw ginger</li> </ul>		
Herbs, fresh	l tablespoon finely cut	I teaspoon dried herbs		
Honey	l cup	• I 1/4 cup sugar and 1/4 cup liquid (use liquid called for in recipe)		
Horseradish	l tablespoon fresh	• 2 tablespoons bottled		
Ketchup	I cup	• I cup tomato sauce, I/2 cup sugar, and 2 tablespoons vinegar (for use in cooking)		
Lemon	l teaspoon juice	• I/2 teaspoon vinegar		
Lemon	I medium	• 2–3 tablespoons juice and 1–2 teaspoons rind		
Lemon peel, dried	l teaspoon	<ul> <li>I-2 teaspoons grated fresh lemon peel</li> <li>Grated peel of 1 medium lemon</li> <li>I/2 teaspoon lemon extract</li> </ul>		
Macaroni, (4	2 cups	• 2 cups spaghetti, uncooked		
cups cooked)	uncooked	• 4 cups noodles, uncooked		
Maple sugar	I/2 cup	<ul> <li>I cup maple syrup and reduce liquid in recipe by I/4 cup</li> </ul>		
Maple sugar (grated and packed)	l tablespoon	• I tablespoon white, granulated sugar		
Maple syrup	About 2 cups	• Combine 2 cups sugar and 1 cup water, bring to clear boil; take off heat; add 1/2 teaspoon maple flavoring		
Marshmallows, miniature	I cup	• 10 large		
Mayonnaise (for use in salads and salad dressings	І сир	<ul> <li>I/2 cup yogurt and I/2 cup mayonnaise</li> <li>I cup sour cream</li> <li>I cup cottage cheese pureed in blender</li> </ul>		

Ingredient	Amount	Substitutes
Me Yen seasoning	l teaspoon	<ul> <li>I teaspoon Beau Monde seasoning</li> <li>I/2 teaspoon table salt</li> </ul>
Milk, buttermilk	I cup	l cup plain yogurt
Milk, buttermilk or sour	І сир	<ul> <li>I cup minus I tablespoon sweet milk and I tablespoon lemon juice or vinegar (allow to stand for 5–10 minutes)</li> <li>I cup sweet milk and I 3/4 teaspoons cream of tartar</li> </ul>
Milk, evaporated (whole or skim)	1/2 cup plus 1/2 cup water	• I cup liquid whole milk
Milk, skim	I cup	• 4–5 tablespoons nonfat dry milk powder and enough water to make one cup, or follow manufacturer's directions
Milk, skim	I/4 cup	<ul> <li>4 teaspoons nonfat dry milk powder and enough water to make 1/4 cup, or follow manufacturer's directions</li> <li>2 tablespoons evaporated skim</li> </ul>
		milk and 2 tablespoons water
Milk, sweetened condensed	I can (about I I/3 cup)	<ul> <li>Heat the following ingredients until sugar and butter are dissolved: 1/3 cup and 2 tablespoons evaporated milk, I cup sugar, 3 tablespoons butter or margarine</li> </ul>
Milk, whole	I cup	<ul> <li>I cup reconstituted nonfat dry milk and 2 teaspoons butter or margarine</li> <li>I/2 cup evaporated milk and</li> </ul>
		<ul> <li>I/2 cup water</li> <li>4 tablespoons whole dry milk and I cup water, or follow manufacturer's directions</li> </ul>
		<ul> <li>I cup fruit juice or I cup potato water (for use in baking)</li> </ul>
		<ul> <li>I/4 cup nonfat dry milk,</li> <li>2 teaspoons butter or margarine, and 7/8 cup water</li> </ul>
		• I cup soy or almond milk
		<ul> <li>I cup water plus I 1/2 teaspoons butter in baking</li> </ul>
		<ul> <li>I cup buttermilk plus</li> <li>I/2 teaspoon baking soda</li> <li>(decrease baking powder in recipe by 2 teaspoons)</li> </ul>
Mint leaves, fresh chopped	I/4 cup	• I tablespoon dried mint leaves
Molasses	I cup	• 3/4 cup sugar, increase liquid by 5 tablespoons, decrease baking soda by 1/2 teaspoon, add 2 teaspoons baking powder
		<ul> <li>3/4 cup sugar plus 1 1/4 teaspoons cream of tartar, increase liquid in recipe by 5 tablespoons</li> </ul>

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	Ingredient	Amount	Substitutes	
	Mushrooms	I pound fresh	• 3 ounces dried mushrooms plus I I/2 cups water	
			• I 10-ounce can	
	Mushrooms, powdered	l tablespoon	• 3 tablespoons whole, dried mushrooms	
			• 4 ounces fresh	
			• 2 ounces canned	
	Mustard, dry	l teaspoon	• I tablespoon prepared mustard	
			<ul> <li>I/2 teaspoon mustard seeds</li> </ul>	
	Nuts	l cup	<ul> <li>I cup rolled oats, browned (in baked products)</li> </ul>	
	Oil (for sautéing)	I/4 cup	• 1/4 cup melted margarine, butter, bacon drippings, shortening, or lard	
	Onion, fresh	I small	<ul> <li>Rehydrate I tablespoon instant minced onion</li> </ul>	
	Onion	I small	• 1/4 cup chopped, fresh onion	
			• 1 1/3 teaspoons onion salt	
			<ul> <li>I–2 tablespoons instant minced onion</li> </ul>	
			• I teaspoon onion powder	
	Oniona instant			
	Onions, instant minced	l tablespoon	<ul> <li>2 tablespoons fresh onion, chopped</li> </ul>	
	Onion powder	l tablespoon	• I medium onion, chopped	
			• 4 tablespoons fresh chopped	
			onion	
	Orange	I medium	• 6–8 tablespoons juice	
			• 3/4 cup diced	
			• 2–3 tablespoons grated rind	
	Orange peel, dried	l tablespoon	<ul> <li>2–3 teaspoons grated fresh orange peel</li> </ul>	
	uneu		Grated peel of 1 medium orange	
	Orange peel,	2 teaspoons	I teaspoon orange extract	
	dried	2 teaspoons	r teaspoon orange extract	
	Orange peel, fresh	I medium	<ul> <li>2–3 tablespoons grated fresh orange peel</li> </ul>	
	Parsley, dried	l teaspoon	• 3 teaspoons fresh parsley, chopped	
	Pepper, white	l teaspoon	• I teaspoon black pepper	
	Peppers, green bell	l tablespoon dried	<ul> <li>3 tablespoons fresh green pepper, chopped</li> </ul>	
	Peppers, red	l tablespoon	• 3 tablespoons fresh red bell	
	bell	dried	pepper, chopped	
			• 2 tablespoons chopped pimento	
	Peppermint, dried	l tablespoon	• I/4 cup chopped fresh mint	
	Pimento	2 tablespoons, chopped	• Rehydrate I tablespoon dried red bell peppers	
			• 3 tablespoons fresh red bell pepper, chopped	
		chopped	• 3 tablespoons fresh red bell	

Ingredient	Amount	Substitutes
Pumpkin pie spice	l teaspoon	• 1/2 teaspoon cinnamon, 1/4 teaspoon ginger, 1/8 teaspoon allspice, and 1/8 teaspoon nutmeg
Rennet	l tablet	• I tablespoon liquid rennet
Rice (3 cups cooked)	I cup regular, uncooked	<ul> <li>I cup uncooked converted rice</li> <li>I cup uncooked brown rice</li> <li>I cup uncooked wild rice</li> <li>I cup bulgur or pearl barley, cooked</li> </ul>
Rum	I/4 cup	<ul> <li>I tablespoon rum extract plus enough liquid to make 1/4 cup</li> </ul>
Shortening, melted	I cup	<ul> <li>I cup cooking oil (cooking oil should be substituted ONLY if recipe calls for melted shortening)</li> </ul>
Shortening, solid (used in baking)	I cup	<ul> <li>I cup minus 2 tablespoons lard</li> <li>I 1/8 cups butter (decrease salt called for in recipe by 1/2 teaspoon)</li> <li>I 1/8 cups margarine (decrease salt called for in recipe by 1/2 teaspoon</li> </ul>
Sour cream, cultured	I cup	<ul> <li>3/4 cup sour milk and 1/3 cup butter or margarine</li> <li>3/4 cup buttermilk and 1/3 cup butter or margarine</li> <li>Blend until smooth: 1/3 cup buttermilk, 1 tablespoon lemon juice, and 1 cup cottage cheese</li> <li>I cup plain yogurt</li> <li>3/4 cup milk, 3/4 teaspoon lemon juice, and 1/3 cup butter or margarine</li> </ul>
Spearmint, dried	l tablespoon	• 1/4 cup chopped fresh mint
Sugar, brown	l cup firmly packed	<ul> <li>I cup granulated sugar</li> <li>I cup granulated sugar plus</li> <li>I/4 cup molasses</li> <li>I/2 cup liquid brown sugar</li> </ul>

Ingredient	Amount	Substitutes	
Sugar, white	I cup	<ul> <li>3/4 cup corn syrup, decrease liquid called for in recipe by 1/4 cup (never replace more than half of recipe's white sugar with a liquid sugar)</li> <li>1 1/3 cup molasses (decrease liquid called for in recipe by 1/3 cup)</li> <li>1 cup powdered sugar</li> <li>1 cup brown sugar, firmly packed</li> <li>1 cup honey (decrease liquid called for in recipe by 1/4 cup</li> <li>1 3/4 cup confectioners' sugar, packed</li> </ul>	
Tapioca, granular	l tablespoon	• 2 tablespoons pearl tapioca	
Tapioca, quick- cooking for thickening	l tablespoon	• I tablespoon of flour	
Tomatoes, canned	l cup	• 1 1/3 cups diced tomatoes simmered 10 minutes	
Tomatoes, fresh	2 cups, chopped	• I 16-ounce can	
Tomatoes, packed	I cup	• 1/2 cup tomato sauce plus 1/2 cup water	
Tomato juice	l cup	• 1/2 cup tomato sauce and 1/2 cup water	
Tomato sauce	2 cups	• 3/4 cup tomato paste plus I cup water	
Tomato soup	10 3/4-ounce can	• I cup tomato sauce plus 1/4 cup water	
Vanilla bean	I/2 bean	• I tablespoon vanilla extract	
Worcestershire sauce	l teaspoon	• I teaspoon bottled steak sauce	
Yeast, active	l tablespoon	• I yeast cake, compressed	
dry		• I package active dry yeast	
Yogurt, plain	I cup	<ul> <li>I cup buttermilk</li> <li>I cup cottage cheese blended until smooth</li> <li>I cup sour cream</li> </ul>	



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