

# 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	1 teaspoon	• 1/2 teaspoon cinnamon and 1/2 teaspoon ground cloves
Apple pie spice	1 teaspoon	• 1/2 teaspoon cinnamon, 1/4 teaspoon nutmeg, and 1/8 teaspoon cardamom
Arrowroot starch	1 1/2 teaspoon	• 1 tablespoon flour • 1 1/2 teaspoons cornstarch
Baking powder	1 teaspoon	• 1/4 teaspoon baking soda and 5/8 teaspoon cream of tartar • 1/4 teaspoon baking soda and 1/2 cup sour milk or buttermilk (decrease liquid called for in recipe by 1/2 cup) • 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)
Bay leaf	1 whole	• 1/4 teaspoon crushed
Beau Monde seasoning	1 teaspoon	• 1 teaspoon seasoning or seasoned salt • 1/2 teaspoon table salt • 1/2 teaspoon Mei Yen seasoning
Brandy	1/4 cup	• 1 teaspoon brandy extract plus enough water or liquid called for in recipe to make 1/4 cup
Broth, beef or chicken	1 cup	• 1 bouillon cube dissolved in 1 cup boiling water • 1 envelope powdered broth base dissolved in 1 cup boiling water • 1 teaspoon powdered broth base dissolved in 1 cup boiling water
Butter	1 cup	• 7/8 to 1 cup hydrogenated fat and 1/2 teaspoon salt • 7/8 cup lard plus 1/2 teaspoon salt • 1 cup margarine
Chicken stock base, instant	1 1/2 teaspoons	• 1 chicken bouillon cube
Chicken stock base, instant	1 tablespoon dissolved in 1 cup water	• 1 cup canned or homemade chicken broth or chicken stock
Chili sauce	1 cup	• 1 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

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

Ingredient	Amount	Substitutes
Egg	1 whole (3 tablespoons)	<ul style="list-style-type: none"> <li>• 3 tablespoons and 1 teaspoon thawed frozen egg</li> <li>• 2 1/2 tablespoons sifted, dry whole egg powder and 2 1/2 tablespoons warm water</li> <li>• 2 yolks and 1 tablespoon water (in cookies)</li> <li>• 2 yolks (in custards, cream fillings, and similar mixtures)</li> <li>• Soften 1 tablespoon unflavored gelatin in 3 tablespoons cold water; add 3 teaspoons boiling water; cool and beat until frothy; add to recipe (reduce other liquid by 2 tablespoons)</li> <li>• 1/4 cup commercial egg substitute</li> </ul>
Egg white	1 white (2 tablespoons)	<ul style="list-style-type: none"> <li>• 2 tablespoons thawed frozen egg white</li> <li>• 2 teaspoons sifted, dry egg white powder and 2 tablespoons lukewarm water</li> </ul>
Egg yolk	1 yolk (1 1/2 teaspoons)	<ul style="list-style-type: none"> <li>• 2 tablespoons sifted dry egg yolk powder and 2 teaspoons water</li> <li>• 1 1/3 tablespoons thawed frozen egg yolk</li> </ul>
Flour, all-purpose (for thickening)	1 tablespoon	<ul style="list-style-type: none"> <li>• 1 1/2 teaspoons cornstarch, arrowroot starch, potato starch, or rice starch</li> <li>• 1 tablespoon granular tapioca</li> <li>• 1 tablespoon waxy rice flour</li> <li>• 1 tablespoon waxy corn flour</li> <li>• 2 tablespoons browned flour</li> <li>• 1 1/2 tablespoons whole wheat flour and 1/2 tablespoon all purpose flour</li> </ul>
Flour, all-purpose Note: Specialty flours added to yeast bread recipes will result in a reduced volume and heavier product	1 cup, sifted	<ul style="list-style-type: none"> <li>• 1 cup and 2 tablespoons cake flour</li> <li>• 1 cup minus 2 tablespoons unsifted all-purpose flour</li> <li>• 1 1/2 cup bread crumbs</li> <li>• 1 cup rolled oats</li> <li>• 1/3 cup cornmeal or soybean flour and 2/3 cup all-purpose flour</li> <li>• 1/2 cup cornmeal, bran, rice flour, rye flour, or whole wheat flour and 1/2 cup all-purpose flour</li> <li>• 3/4 cup whole wheat flour or bran flour and 1/4 cup all-purpose flour</li> <li>• 1 cup rye or rice flour</li> <li>• 1/4 cup soybean flour and 3/4 cup all-purpose flour</li> </ul>
Flour, cake	1 cup sifted	<ul style="list-style-type: none"> <li>• 1 cup minus 2 tablespoons sifted all-purpose flour</li> </ul>

Ingredient	Amount	Substitutes
Flour, self-rising	1 cup	<ul style="list-style-type: none"> <li>• 1 cup minus 2 teaspoons all-purpose flour, 1 1/2 teaspoons baking powder, and 1/2 teaspoon salt</li> </ul>
Flour, whole wheat	Any amount	<ul style="list-style-type: none"> <li>• Substitute whole wheat flour for 1/4 to 1/2 of the white flour called for in a recipe</li> </ul>
Garlic	1 clove, small	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• 1 tablespoon plain gelatin and 2 cups fruit juice</li> </ul>
Ginger	1/8 teaspoon, powdered	<ul style="list-style-type: none"> <li>• 1 tablespoon candied ginger rinsed in water to remove sugar and finely cut</li> <li>• 1 tablespoon raw ginger</li> </ul>
Herbs, fresh	1 tablespoon finely cut	1 teaspoon dried herbs
Honey	1 cup	<ul style="list-style-type: none"> <li>• 1 1/4 cup sugar and 1/4 cup liquid (use liquid called for in recipe)</li> </ul>
Horseradish	1 tablespoon fresh	<ul style="list-style-type: none"> <li>• 2 tablespoons bottled</li> </ul>
Ketchup	1 cup	<ul style="list-style-type: none"> <li>• 1 cup tomato sauce, 1/2 cup sugar, and 2 tablespoons vinegar (for use in cooking)</li> </ul>
Lemon	1 teaspoon juice	<ul style="list-style-type: none"> <li>• 1/2 teaspoon vinegar</li> </ul>
Lemon	1 medium	<ul style="list-style-type: none"> <li>• 2–3 tablespoons juice and 1–2 teaspoons rind</li> </ul>
Lemon peel, dried	1 teaspoon	<ul style="list-style-type: none"> <li>• 1–2 teaspoons grated fresh lemon peel</li> <li>• Grated peel of 1 medium lemon</li> <li>• 1/2 teaspoon lemon extract</li> </ul>
Macaroni, (4 cups cooked)	2 cups uncooked	<ul style="list-style-type: none"> <li>• 2 cups spaghetti, uncooked</li> <li>• 4 cups noodles, uncooked</li> </ul>
Maple sugar	1/2 cup	<ul style="list-style-type: none"> <li>• 1 cup maple syrup and reduce liquid in recipe by 1/4 cup</li> </ul>
Maple sugar (grated and packed)	1 tablespoon	<ul style="list-style-type: none"> <li>• 1 tablespoon white, granulated sugar</li> </ul>
Maple syrup	About 2 cups	<ul style="list-style-type: none"> <li>• Combine 2 cups sugar and 1 cup water, bring to clear boil; take off heat; add 1/2 teaspoon maple flavoring</li> </ul>
Marshmallows, miniature	1 cup	<ul style="list-style-type: none"> <li>• 10 large</li> </ul>
Mayonnaise (for use in salads and salad dressings)	1 cup	<ul style="list-style-type: none"> <li>• 1/2 cup yogurt and 1/2 cup mayonnaise</li> <li>• 1 cup sour cream</li> <li>• 1 cup cottage cheese pureed in blender</li> </ul>

Ingredient	Amount	Substitutes
Me Yen seasoning	1 teaspoon	<ul style="list-style-type: none"> <li>1 teaspoon Beau Monde seasoning</li> <li>1/2 teaspoon table salt</li> </ul>
Milk, buttermilk	1 cup	1 cup plain yogurt
Milk, buttermilk or sour	1 cup	<ul style="list-style-type: none"> <li>1 cup minus 1 tablespoon sweet milk and 1 tablespoon lemon juice or vinegar (allow to stand for 5–10 minutes)</li> <li>1 cup sweet milk and 1 3/4 teaspoons cream of tartar</li> </ul>
Milk, evaporated (whole or skim)	1/2 cup plus 1/2 cup water	1 cup liquid whole milk
Milk, skim	1 cup	4–5 tablespoons nonfat dry milk powder and enough water to make one cup, or follow manufacturer's directions
Milk, skim	1/4 cup	<ul style="list-style-type: none"> <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 milk and 2 tablespoons water</li> </ul>
Milk, sweetened condensed	1 can (about 1 1/3 cup)	Heat the following ingredients until sugar and butter are dissolved: 1/3 cup and 2 tablespoons evaporated milk, 1 cup sugar, 3 tablespoons butter or margarine
Milk, whole	1 cup	<ul style="list-style-type: none"> <li>1 cup reconstituted nonfat dry milk and 2 teaspoons butter or margarine</li> <li>1/2 cup evaporated milk and 1/2 cup water</li> <li>4 tablespoons whole dry milk and 1 cup water, or follow manufacturer's directions</li> <li>1 cup fruit juice or 1 cup potato water (for use in baking)</li> <li>1/4 cup nonfat dry milk, 2 teaspoons butter or margarine, and 7/8 cup water</li> <li>1 cup soy or almond milk</li> <li>1 cup water plus 1 1/2 teaspoons butter in baking</li> <li>1 cup buttermilk plus 1/2 teaspoon baking soda (decrease baking powder in recipe by 2 teaspoons)</li> </ul>
Mint leaves, fresh chopped	1/4 cup	1 tablespoon dried mint leaves
Molasses	1 cup	<ul style="list-style-type: none"> <li>3/4 cup sugar, increase liquid by 5 tablespoons, decrease baking soda by 1/2 teaspoon, add 2 teaspoons baking powder</li> <li>3/4 cup sugar plus 1 1/4 teaspoons cream of tartar, increase liquid in recipe by 5 tablespoons</li> </ul>

Ingredient	Amount	Substitutes
Mushrooms	1 pound fresh	<ul style="list-style-type: none"> <li>3 ounces dried mushrooms plus 1 1/2 cups water</li> <li>1 10-ounce can</li> </ul>
Mushrooms, powdered	1 tablespoon	<ul style="list-style-type: none"> <li>3 tablespoons whole, dried mushrooms</li> <li>4 ounces fresh</li> <li>2 ounces canned</li> </ul>
Mustard, dry	1 teaspoon	<ul style="list-style-type: none"> <li>1 tablespoon prepared mustard</li> <li>1/2 teaspoon mustard seeds</li> </ul>
Nuts	1 cup	1 cup rolled oats, browned (in baked products)
Oil (for sautéing)	1/4 cup	1/4 cup melted margarine, butter, bacon drippings, shortening, or lard
Onion, fresh	1 small	Rehydrate 1 tablespoon instant minced onion
Onion	1 small	<ul style="list-style-type: none"> <li>1/4 cup chopped, fresh onion</li> <li>1 1/3 teaspoons onion salt</li> <li>1–2 tablespoons instant minced onion</li> <li>1 teaspoon onion powder</li> </ul>
Onions, instant minced	1 tablespoon	2 tablespoons fresh onion, chopped
Onion powder	1 tablespoon	<ul style="list-style-type: none"> <li>1 medium onion, chopped</li> <li>4 tablespoons fresh chopped onion</li> </ul>
Orange	1 medium	<ul style="list-style-type: none"> <li>6–8 tablespoons juice</li> <li>3/4 cup diced</li> <li>2–3 tablespoons grated rind</li> </ul>
Orange peel, dried	1 tablespoon	<ul style="list-style-type: none"> <li>2–3 teaspoons grated fresh orange peel</li> <li>Grated peel of 1 medium orange</li> </ul>
Orange peel, dried	2 teaspoons	1 teaspoon orange extract
Orange peel, fresh	1 medium	2–3 tablespoons grated fresh orange peel
Parsley, dried	1 teaspoon	3 teaspoons fresh parsley, chopped
Pepper, white	1 teaspoon	1 teaspoon black pepper
Peppers, green bell	1 tablespoon dried	3 tablespoons fresh green pepper, chopped
Peppers, red bell	1 tablespoon dried	<ul style="list-style-type: none"> <li>3 tablespoons fresh red bell pepper, chopped</li> <li>2 tablespoons chopped pimento</li> </ul>
Peppermint, dried	1 tablespoon	1/4 cup chopped fresh mint
Pimento	2 tablespoons, chopped	<ul style="list-style-type: none"> <li>Rehydrate 1 tablespoon dried red bell peppers</li> <li>3 tablespoons fresh red bell pepper, chopped</li> </ul>

Ingredient	Amount	Substitutes
Pumpkin pie spice	1 teaspoon	<ul style="list-style-type: none"> <li>• 1/2 teaspoon cinnamon, 1/4 teaspoon ginger, 1/8 teaspoon allspice, and 1/8 teaspoon nutmeg</li> </ul>
Rennet	1 tablet	<ul style="list-style-type: none"> <li>• 1 tablespoon liquid rennet</li> </ul>
Rice (3 cups cooked)	1 cup regular, uncooked	<ul style="list-style-type: none"> <li>• 1 cup uncooked converted rice</li> <li>• 1 cup uncooked brown rice</li> <li>• 1 cup uncooked wild rice</li> <li>• 1 cup bulgur or pearl barley, cooked</li> </ul>
Rum	1/4 cup	<ul style="list-style-type: none"> <li>• 1 tablespoon rum extract plus enough liquid to make 1/4 cup</li> </ul>
Shortening, melted	1 cup	<ul style="list-style-type: none"> <li>• 1 cup cooking oil (cooking oil should be substituted <b>ONLY</b> if recipe calls for melted shortening)</li> </ul>
Shortening, solid (used in baking)	1 cup	<ul style="list-style-type: none"> <li>• 1 cup minus 2 tablespoons lard</li> <li>• 1 1/8 cups butter (decrease salt called for in recipe by 1/2 teaspoon)</li> <li>• 1 1/8 cups margarine (decrease salt called for in recipe by 1/2 teaspoon)</li> </ul>
Sour cream, cultured	1 cup	<ul style="list-style-type: none"> <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>• 1 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	1 tablespoon	<ul style="list-style-type: none"> <li>• 1/4 cup chopped fresh mint</li> </ul>
Sugar, brown	1 cup firmly packed	<ul style="list-style-type: none"> <li>• 1 cup granulated sugar</li> <li>• 1 cup granulated sugar plus 1/4 cup molasses</li> <li>• 1/2 cup liquid brown sugar</li> </ul>

Ingredient	Amount	Substitutes
Sugar, white	1 cup	<ul style="list-style-type: none"> <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	1 tablespoon	<ul style="list-style-type: none"> <li>• 2 tablespoons pearl tapioca</li> </ul>
Tapioca, quick-cooking for thickening	1 tablespoon	<ul style="list-style-type: none"> <li>• 1 tablespoon of flour</li> </ul>
Tomatoes, canned	1 cup	<ul style="list-style-type: none"> <li>• 1 1/3 cups diced tomatoes simmered 10 minutes</li> </ul>
Tomatoes, fresh	2 cups, chopped	<ul style="list-style-type: none"> <li>• 1 16-ounce can</li> </ul>
Tomatoes, packed	1 cup	<ul style="list-style-type: none"> <li>• 1/2 cup tomato sauce plus 1/2 cup water</li> </ul>
Tomato juice	1 cup	<ul style="list-style-type: none"> <li>• 1/2 cup tomato sauce and 1/2 cup water</li> </ul>
Tomato sauce	2 cups	<ul style="list-style-type: none"> <li>• 3/4 cup tomato paste plus 1 cup water</li> </ul>
Tomato soup	10 3/4-ounce can	<ul style="list-style-type: none"> <li>• 1 cup tomato sauce plus 1/4 cup water</li> </ul>
Vanilla bean	1/2 bean	<ul style="list-style-type: none"> <li>• 1 tablespoon vanilla extract</li> </ul>
Worcestershire sauce	1 teaspoon	<ul style="list-style-type: none"> <li>• 1 teaspoon bottled steak sauce</li> </ul>
Yeast, active dry	1 tablespoon	<ul style="list-style-type: none"> <li>• 1 yeast cake, compressed</li> <li>• 1 package active dry yeast</li> </ul>
Yogurt, plain	1 cup	<ul style="list-style-type: none"> <li>• 1 cup buttermilk</li> <li>• 1 cup cottage cheese blended until smooth</li> <li>• 1 cup sour cream</li> </ul>



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