

Ingredient Substitutions and Equivalents

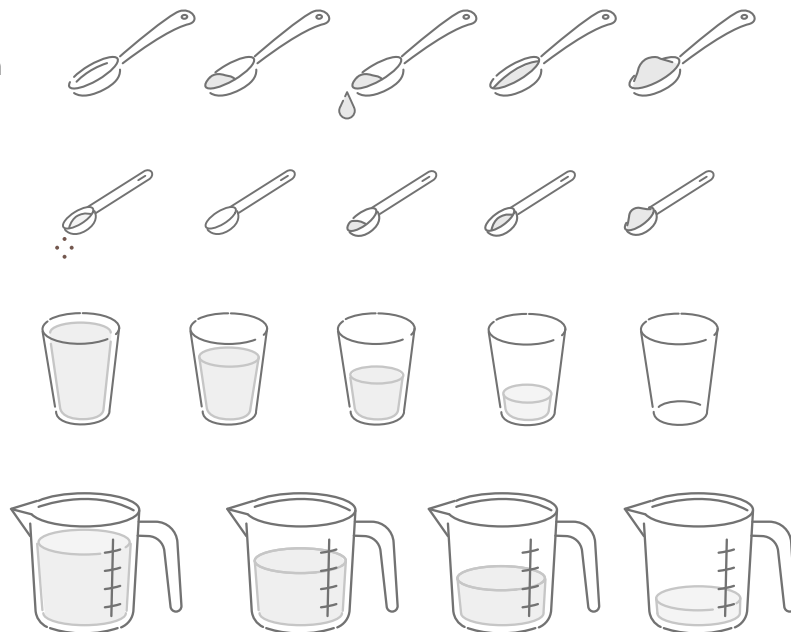
This publication has useful information on substitutions and equivalents. But remember that your substituted ingredient may not perform just like the original in the recipe.

Many substitutions or equivalents will perform the same: 4 ounces of spaghetti for 4 ounces of other type noodles. Other substitutes have similar properties but will not perform exactly the same. For example, 1 cup of white sugar and 1 cup of honey both will make your dessert sweet, but the honey will also make the product brown more, add a flavor of its own, and require you to decrease other liquids in the recipe.

Each ingredient has a specific function, and substitutions could result in changes. Therefore, use substitutions for emergencies or when you don't mind a slight variation in the taste or substance.

For the tables on the subsequent pages, please refer to the following key:

c = cup
lb = pound
oz = ounce
fl oz = fluid ounce
qt = quart
tbsp = tablespoon
tsp = teaspoon



Ingredient	Amount	Substitute or Equivalent
Allspice	1 tsp	= ½ tsp cinnamon and ½ tsp ground cloves
Apples	1 lb	= 3 or 4 medium = 3 c sliced
Apple pie spice	1 tsp	= ½ tsp cinnamon, ¼ tsp nutmeg, and ⅛ tsp cardamom
Arrowroot starch	1½ tsp	= 1 tbsp flour = 1½ tsp cornstarch
Asparagus	1 lb	= 16 to 20 spears
Baking powder	1 tsp	= ⅓ tsp baking soda and ½ tsp cream of tartar = ¼ tsp baking soda and ½ c sour milk or buttermilk (Decrease liquid called for in recipe by ½ c.) = ¼ tsp baking soda and ½ tsp vinegar or lemon juice used with sweet milk to make ½ c (Decrease liquid called for in recipe by ½ c.)
Bananas	1 lb	= 3 or 4 medium = 1¾ c mashed
Bay leaf	1 whole	= ¼ tsp crushed
Beans, white	1 lb uncooked	= 2 c uncooked = 6 c cooked
Beans, green	1 lb	= 3 c
Beans, kidney	1 lb uncooked	= 1½ c uncooked = 9 c cooked
Beans, lima, dry shelled	1 lb uncooked	= 3 c uncooked = 6 c cooked
Beau Monde	1 tsp	= 1 tsp seasoning or seasoned salt = ½ tsp salt = ½ tsp Mei Yen seasoning
Beets without tops	1 lb	= 2 c sliced
Blackberries	1 qt	= 1¼ lb = 3 to 4 c
Blueberries	1 lb	= 2 c
Bread	1 slice dry 1 slice soft bread	= ⅓ c dry breadcrumbs = ¾ c soft breadcrumbs
Broccoli	1 lb	= 2 c
Broth, beef or chicken	1 c	= 1 bouillon cube dissolved in 1 c boiling water = 1 envelope powdered broth base dissolved in 1 c boiling water = 1½ tsp powdered broth base dissolved in 1 c boiling water
Butter	1 c	= ⅞ to 1 c hydrogenated fat and ½ tsp salt = ⅞ c lard plus ½ tsp salt = 1 c margarine
Buttermilk (sourmilk)	1 c	= 1 c plain yogurt = 1 c whole or skim milk plus 1 tbsp lemon juice or white vinegar = 1 c milk plus 1¾ tsp cream of tartar
Brussels sprouts	1 lb	= 4 c
Cabbage	1 lb shredded 1 lb cooked	= 3½ to 4½ c = 2 c
Carrots	1 lb without tops 1 lb shredded	= 3 c = 2½ c
Cauliflower	1 lb	= 1½ c
Celery	1 lb	= 2 bunches

Ingredient	Amount	Substitute or Equivalent
Cheese (36% to 40% fat)	1 lb	= 4 to 5 c, grated
	1 c grated	= 4 oz (approximately) = 2 to 2½ c whipped
Cherries	1 lb	= 2⅔ c
Chicken	1½ lb boned	= 1 c cooked, diced
Chili sauce	1 c	= 1 c tomato sauce, ¼ c brown sugar, 2 tbs vinegar, ¼ tsp cinnamon, dash of ground cloves, and dash of allspice = 1 c ketchup, ¼ tsp cinnamon, dashes of ground cloves and allspice
Chives, finely chopped	2 tsp	= 2 tsp green onion tops, finely chopped
Chocolate, chips semisweet	1 oz	= 1 oz sweet cooking chocolate
Chocolate, semisweet	1⅓ oz	= 1 oz unsweetened chocolate plus 4 tsp sugar
	6 oz package	= 1 c
Chocolate, unsweetened	1 oz or square	= 3 tbs cocoa plus 1 tbs fat
Cocoa	¼ c or 4 tbs	= 1 oz (square) unsweetened chocolate (Decrease fat called for in recipe by ½ tbs)
Coconut	1 lb	= 5 c fresh coconut, shredded
Coconut cream	1 c	= 1 c whipping cream
Coconut milk	1 c	= 1 c whole or 2% milk
Coffee, ground	1 lb	= 80 tbs (makes 40 to 50 c of brewed coffee)
Corn	12 ears	= 2½ c cooked
Cornmeal, self-rising	1 c	= ⅞ c plain, 1½ tbs baking powder, and ½ tbs salt
	1 lb	= 3 c
Corn syrup	¾ c	= ⅞ c sugar and 2 tbs water
		= ⅞ c honey (Baked goods will brown more)
Cornstarch (for thickening)	1 tbs	= 2 tbs all-purpose flour = 2 tbs granular tapioca
Cracker crumbs	¾ c	= 1 c dry bread crumbs
Cranberries	1 lb	= 4 c
Cream, heavy (36% to 40% fat)	1 c	= ¾ c milk and ⅓ c butter or margarine (for use in cooking and baking)
		= 2 to 2½ c whipped
Cream, light (18% to 20% fat)	1 c	= ¾ c milk and 3 tbs butter or margarine (for use in cooking or baking)
		= 1 c evaporated milk, undiluted
Cream, whipped	1 c	= Chill a 13-oz can of evaporated milk until ice crystals form. Add 1 tsp lemon juice. Whip until stiff.
Dates	1 lb	= 2½ c pitted
Dill plant, fresh or dried	3 heads	= 1 tbs dill seed
Egg, whole, uncooked	1 large (3 tbs)	= 3 tbs and 1 tsp thawed frozen egg = 2½ tbs sifted, dry whole egg powder and 2½ tbs lukewarm water = 2 yolks and 1 tbs water (in cookies) = 2 yolks (in custards, cream fillings, and similar mixture) = 2 whites as a thickening agent
Eggs, uncooked	1 c	= 5 large eggs = 6 medium eggs
Eggplant, diced, cooked	1 lb	= 2½ c
Egg white	1 large (2 tbs)	= 2 tsp thawed frozen egg white
	1 c	= 2 tbs sifted, dry egg white powder, and 2 tbs lukewarm water = 8 large egg whites

Ingredient	Amount	Substitute or Equivalent
Egg yolk	1 yolk (1½ tbsp)	= 3½ tbsp thawed frozen egg yolk
	1 c	= 2 tbsp sifted, dry egg yolk = 12 large egg yolks
Flour, all-purpose (for thickening)	1 tbsp	= 1½ tsp cornstarch, arrowroot starch, potato starch, or rice starch = 1 tbsp granular tapioca = 1 tbsp waxy rice flour = 2 tbsp browned flour = 1½ tbsp whole wheat flour = ½ tbsp whole wheat flour and ½ tbsp all-purpose flour = 1 tbsp quick-cooking tapioca
Flour, all-purpose	1 c sifted	= 1 c and 2 tbsp cake flour = 1 c rolled oats, crushed = ½ c cornmeal or soybean flour and ⅔ c all-purpose flour = ½ c cornmeal, bran, rice flour, or whole wheat flour and ½ c all-purpose flour = ¾ c whole wheat flour or bran flour and ¼ c all-purpose flour = 1 c rye or rice flour = ¼ c soybean flour and ¾ c all-purpose flour
	1 lb	= 4 c sifted = 3⅓ c, unsifted
Flour, cake	1 lb	= 4¾ c
	1 c sifted	= 1 c minus 2 tbsp sifted all-purpose flour (⅞ c)
Flour, self-rising	1 c	= 1 c minus 2 tsp all-purpose flour, 1½ tsp baking powder, and ½ tsp salt
Flour, whole wheat	1 lb	3¾ c Note: <i>Substituting white flour with alternatives in baked goods will reduce volume and make the product heavier. For cakes, replace no more than ¼ of the white flour for best results. In other recipes, you can substitute ¼ to ½ of the white flour with whole wheat flour.</i>
Garlic	1 clove, small	= ⅛ tsp garlic powder
Garlic salt	1 tsp	= ⅛ tsp garlic powder plus ⅞ tsp salt
Gelatin, flavored	3 oz	= 1 tbsp plain gelatin and 2 c fruit juice
Ginger	⅛ tsp	= 1 tsp candied ginger rinsed in water to remove sugar, then finely cut = 1 tbsp raw ginger
Grapes	1 lb	= 2 c seeded = 2½ c seedless
Greens, cooked	1 lb	= 4 to 6 c
Herbs, fresh	1 tbsp, chopped	= ½ tsp dried crushed herbs
Honey	1 c	= 1¼ c sugar and ¼ c water
Horseradish	1 tbsp	= 2 tbsp bottled fresh
Ketchup	1 c	= 1 c tomato sauce, ¼ c brown sugar, and 2 tbsp vinegar (for use in cooking)
		= 1 to 2 tsp grated peel
Lemon juice	1 tsp juice	= ½ tsp vinegar
Lemon peel, dried	1 tsp	= 1 to 2 tsp grated fresh lemon peel = grated peel of 1 medium lemon = ½ tsp lemon extract
Lettuce head	1 lb	= 6¼ c
Lettuce, leaf	1 lb	= 6¼ c
Lettuce, romaine	1 lb	= 6 c
Lettuce, endive	1 lb	= 4¼ c

Ingredient	Amount	Substitute or Equivalent
Lime	1 medium	= 1½ to 2 tbsp juice
Macaroni, 1-inch pieces	2 c uncooked (½ lb)	= 4 c cooked = 2 c spaghetti, uncooked = 4 c noodles, uncooked = 8 oz any pasta
Maple sugar (grated and packed)	½ c	= 1 c maple syrup
	1 tbsp	= 1 tbsp white, granulated sugar
Marshmallows, miniature	1 c	= 10 large
Mayonnaise (for use in salads and salad dressings)	1 c	= ½ c yogurt and ½ c mayonnaise = 1 c sour cream = 1 c cottage cheese pureed in a blender
Mei Yen seasoning	1 tsp	= 1 tsp Beau Monde seasoning = ½ tsp salt
Milk, buttermilk (or sour)	1 c	= 1 c plain yogurt = 1 c minus 1 tbsp sweet milk and 1 tbsp lemon juice or vinegar (Allow to stand 20 minutes at room temperature.) = 1 c sweet milk and 1¾ tsp cream of tartar
Milk, skim	1 c	= 4 to 5 tbsp non-fat dry milk powder and enough water to make 1 c or follow manufacturer's directions = ½ c evaporated milk and ½ c water
Milk, sweetened condensed	1 can (about 1½ c)	= Heat the following ingredients until sugar and butter are dissolved: ½ c plus 2 tbsp evaporated milk, 1 c sugar, and 3 tbsp butter or margarine. = Add 1 c plus 2 tbsp dry milk to ½ c warm water. Mix well. Add ¾ c sugar and 3 tbsp melted butter or margarine. Stir until smooth.
Milk, whole	1 c	= 1 c reconstituted non-fat dry milk (Add 2 tbsp butter or margarine, if desired.) = ½ c evaporated milk and ½ c water = 4 tbsp whole dry milk and 1 c water (or follow manufacturer's directions) = 1 c fruit juice or 1 c potato water (for use in baking)
Mushrooms, fresh	1 lb	= 2 to 3 c whole
		= 3 oz dried
		= 5 c sliced
		= 1 10-oz can (8 oz, drained weight)
Mushrooms, canned	4 oz	= 2 c sliced fresh = 6 tbsp whole, dried mushrooms
Mustard, dry	1 tsp	= 1 tbsp prepared mustard
Noodles, 1-inch pieces	1 lb	= 6 to 8 c uncooked
		= 8 c cooked
Okra	1 lb	= 2¼ c cooked
Onion, fresh	1 small	= 1 tbsp rehydrated instant minced onion
Onion powder	1 tbsp	= 1 medium onion, chopped = 4 tbsp fresh chopped onion
Onions	1 lb	= 3 large onions
		= 2 to 2½ c chopped
Orange	1 medium	= ½ to ½ c juice
		= 2 to 3 tbsp grated peel

Ingredient	Amount	Substitute or Equivalent
Orange peel, dried	1 tbsp	= 2 to 3 tbsp grated orange peel = grated peel of 1 medium orange
	2 tsp	= 1 tsp orange extract
Parsley, dried	1 tsp	= 3 tsp fresh parsley, chopped
Parsnips	1 lb	= 4 medium parsnips = 2 c cooked
Peaches	1 lb	= 4 medium = 2 c sliced
Pears	1 lb	= 4 medium = 2⅓ c sliced
Peas, green, in pod	1 lb	= 1 c shelled = 1 c cooked
Peas, black-eyed	1 lb	= 2⅓ c cooked
Pecans	1 lb	= 3½ c nut meats
Peppers, green bell	1 tbsp dried	= 3 tbsp fresh green pepper, chopped
Peppers, red bell	1 tbsp dried	= 3 tbsp fresh red pepper, chopped = 2 tbsp chopped pimiento
Peppermint, dried	1 tbsp	= ¼ c chopped fresh mint
Pimiento	2 tbsp dried	= 1 tbsp dried red bell peppers, rehydrated = 3 tbsp fresh red bell pepper, chopped
Plums	1 lb	= 8 to 20 whole = 2 c halves
Potatoes, white	1 lb whole cooked, diced, or sliced	= 3 medium = 2¼ c
	1 lb mashed	= 1¾ c
Prunes	1 lb	= 2¼ c pitted
Pumpkin, mashed, cooked	1 lb	= 1 c
Pumpkin pie spice	1 tsp	= ½ tsp cinnamon, ¼ tsp ginger, ⅛ tsp allspice, and ⅛ tsp nutmeg
Radishes	6 oz	= 1¼ c sliced
Raisins	1 lb	= 2¾ c
Rennet	1 tablet	= 1 tbsp liquid rennet
Rhubarb, fresh	1 lb	= 2 c cooked = 4 to 8 pieces
Rice	1 lb	= 6 c cooked = 2 c uncooked
	1 c regular, uncooked	= 1 c uncooked converted rice = 1 c uncooked brown rice = 1 c uncooked wild rice = 2 c cooked
Rice, instant	1 to 2 c uncooked	= 1 cup cooked
Rutabaga	1 lb	= 2½ c cubed = 2 c cooked
Shortening, melted	1 c	= 1 c cooking oil (Do not substitute unless recipe calls for melted shortening.)
Shortening, solid (used in baking)	1 c	= 1 c minus 2 tbsp lard (⅞ c) = 1⅞ c butter (Decrease salt called for in recipe by ½ tsp.)

Ingredient	Amount	Substitute or Equivalent
Sour cream, cultured	1 c	= $\frac{3}{4}$ c sour milk or buttermilk and $\frac{1}{3}$ c butter or margarine = Blend until smooth: $\frac{1}{3}$ c buttermilk, 1 tbsp lemon juice, and 1 c cottage cheese = 1 c plain yogurt = $\frac{3}{4}$ c milk, $\frac{3}{4}$ tsp lemon juice, and $\frac{1}{3}$ c butter or margarine
Spaghetti	1 lb	= 4 to 5 c 2-inch pieces = 9 c cooked
Spearmint, dried	1 tbsp	= $\frac{1}{4}$ c chopped fresh mint
Spinach	1 lb	= 4 c fresh = $1\frac{1}{2}$ c cooked
Squash, summer	1 lb	= $1\frac{2}{3}$ c cooked and mashed
Squash, winter	1 lb	= 1 c cooked and mashed
Strawberries	1 qt	= 4 c sliced
Sugar, brown	1 c firmly packed	= 1 c granulated sugar
	1 lb	= $2\frac{1}{4}$ c firmly packed
Sugar, granulated	1 lb	= $2\frac{1}{4}$ c
	1 tsp	= $\frac{1}{8}$ tsp noncaloric sweetener solution or follow manufacturer's directions
	1 c	= $1\frac{1}{2}$ c corn syrup (decrease liquid called for in recipe by $\frac{1}{4}$ c) = $1\frac{1}{3}$ c molasses (decrease liquid called for in recipe by $\frac{1}{3}$ c) = 1 c powdered sugar = 1 c brown sugar, firmly packed = $\frac{3}{4}$ c honey (decrease liquid called for in recipe by $\frac{1}{4}$ c; for each c of honey in baked goods, add $\frac{1}{2}$ tsp soda.)
Sugar, powdered	1 lb	= $2\frac{3}{4}$ c
Sweet potatoes	1 lb	= 3 medium
Tapioca, granular	1 tbsp	= 2 tbsp pearl tapioca
Tomatoes, fresh	1 lb	= 3 to 4 small
	2 c chopped	= 1 16-oz can (may need to drain)
Tomato juice	1 c	= $\frac{1}{2}$ c tomato sauce and $\frac{1}{2}$ c water
Turnips	1 lb	= 3 medium turnips = 2 c cooked
Worcestershire sauce	1 tsp	= 1 tsp bottled steak sauce
Yeast, active dry	1 tsp	= cake yeast, compressed = 1 package ($\frac{1}{4}$ oz) active dry yeast
Yogurt, plain	1 c	= 1 c buttermilk = 1 c cottage cheese blended until smooth = 1 c sour cream

Equivalent Measures

This Much	Equals This Much
1 gallon	4 quarts
1 quart	2 pints
1 pint	2 cups
1 bushel	4 pecks
1 peck	8 quarts
1 cup	16 tablespoons
$\frac{7}{8}$ cup	14 tablespoons or 1 cup minus 2 tablespoons
$\frac{3}{4}$ cup	12 tablespoons
$\frac{2}{3}$ cup	$10\frac{2}{3}$ tablespoons
$\frac{5}{8}$ cup	10 tablespoons
$\frac{1}{2}$ cup	8 tablespoons
$\frac{3}{8}$ cup	6 tablespoons
$\frac{1}{3}$ cup	$5\frac{1}{3}$ tablespoons
$\frac{1}{4}$ cup	4 tablespoons
$\frac{1}{8}$ cup	2 tablespoons
$\frac{1}{6}$ cup	1 tablespoons
1 tablespoon	3 teaspoons
$\frac{3}{4}$ tablespoon	$2\frac{1}{4}$ teaspoons
$\frac{2}{3}$ tablespoon	2 teaspoons
$\frac{1}{2}$ tablespoon	$1\frac{1}{2}$ teaspoons
$\frac{1}{3}$ tablespoon	1 teaspoon
$\frac{1}{4}$ tablespoon	$\frac{3}{4}$ teaspoon
Pinch or dash	$\frac{1}{6}$ teaspoon

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Reviewed by **Qula Madkin**, MS, RDN, LD, CDCES, Extension Instructor, Biochemistry, Nutrition, and Health Promotion.



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