

Adapting Recipes

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Cooking for better health doesn't mean you have to give up your favorite recipes. Equipped with a little information, you can learn how to adapt recipes to meet your dietary goals. Whether you're trying to lose weight, lower your cholesterol, lower your sodium intake, or just be healthier, you can alter or substitute ingredients in recipes to improve your eating habits. The path for a healthier lifestyle includes developing good dietary habits. Remember, children younger than 2 have special dietary needs, so check with your local registered dietitian or physician before altering their diet.

How to Alter a Recipe?

Recipes are chemical formulas. Any change made in a recipe will alter the end result, which you may or may not be happy with. Food safety and quality, of course, is the aim. While most recipes can be altered safely, food preservation recipes are USDA-tested to keep you from becoming ill or even dying. Do not substitute ingredients in these recipes.

3-step Approach to Adapting Recipes

- 1. Identify nutrients you wish to limit** depending on health conditions or dietary needs. These nutrients may include fat, cholesterol, sugar, or sodium.



- 2. Find healthier substitutions** to replace ingredients you wish to limit. You can reduce the amount of an ingredient or substitute a similar ingredient that is more healthful. Sometimes you can eliminate the unhealthy ingredient completely.
- 3. Change your cooking method** by trying sautéing or roasting, instead of frying.

Recipe Makeover - Morning Glory Muffins

Original

Yield: 14 muffins

- 2 cups all-purpose flour
- 1 1/4 cups sugar
- 2 teaspoons baking soda
- 1 teaspoon cinnamon
- 1/2 teaspoon salt
- 3 large eggs
- 1 cup vegetable oil
- 1/2 cup sweetened coconut
- 1 teaspoon vanilla extract
- 1/2 cup peeled and chopped apple
- 1/2 cup raisins
- 1 cup grated carrots
- 1/2 cup chopped pecans

1. Combine dry ingredients (flour, sugar, baking soda, cinnamon, and salt). Stir until well mixed.
2. Add apple, raisins, carrots, and nuts into dry ingredients. Stir until coated.
3. Combine remaining ingredients until there are no pockets of flour remaining. Try not to overmix.
4. Using a muffin tin with liners, spoon the batter into the liners, filling them all the way to the top.
5. Bake for 5 minutes at 425 degrees F and then reduce oven temperature to 350 degrees F for an additional 18 minutes or until a toothpick inserted into the center comes out clean. Total baking time is 20 to 25 minutes. Note: The initial hot oven causes the muffin tops to rise tall, providing a traditional muffin top. The lower temperature then allows the muffin to bake internally.
6. Cool for 10 minutes in the muffin tin, then transfer to a wire rack to cool.
7. Store at room temperature for 2 days or refrigerate up to 1 week.

Nutritional analysis per muffin: 330 calories, 4 g protein, 21 g fat, 40 mg cholesterol, 290 mg sodium, 35 g carbohydrate, 2 g fiber

Modified

Yield: 14 muffins

- 2 cups whole-wheat flour
- 1/2 cup brown sugar, packed
- 1/4 cup honey
- 2 teaspoons baking soda
- 2 teaspoons cinnamon
- 1 teaspoon ginger
- 3 large eggs
- 1/3 cup vegetable oil
- 1/3 cup unsweetened applesauce
- 4 ounces coconut yogurt
- 2 teaspoons vanilla extract
- 1 cup chopped apple
- 1/2 cup raisins
- 2 cup grated carrots
- 1/3 cup orange juice
- 1/2 cup chopped pecans

1. Use same methods to prepare and bake muffins.

Nutritional analysis per muffin: 230 calories, 4 g protein, 9 g fat, 40 mg cholesterol, 210 mg sodium, 35 g carbohydrate, 3 g fiber

Modification Hints

- Using whole-wheat flour and leaving the skin on the apples and carrots increases the fiber content.
- Spices and extracts enhance the perception of sweetness, especially cinnamon and vanilla.
- Baking soda contains sodium so salt can often be omitted in batters.
- Replacing half the oil in any baked-good recipe with unsweetened applesauce will reduce fat.
- Omitting nuts will reduce the caloric content by 20 calories per muffin.
- Replacing eggs with an egg substitute reduces cholesterol to zero per muffin but increases sodium slightly.

Vegetable Fettuccine Alfredo

Original

Yield: 4 servings

- 16 ounces *Fettuccine pasta*
- 1 cup *butter*
- 1 cup *cream*
- 1 cup *grated Parmesan cheese*
- 8 ounces *sliced mushrooms*
- 10 ounces *fresh spinach*
- 5 ounces *sliced-in-half cherry tomatoes*
- 2 *minced garlic cloves*
- 2 *tablespoons dried parsley*

1. Cook pasta according to package directions. Drain, but reserve 1 cup of liquid.
2. Heat 1 tablespoon of butter in a large sauté pan over medium heat. Add garlic, and sauté for 1 minute, stirring occasionally.
3. Add mushrooms, and sauté for 3 minutes, continuing to stir occasionally.
4. Add spinach and tomatoes. Sauté for an addition 4 to 6 minutes, until all vegetables are done.
5. Meanwhile, heat remaining butter and cream in a large skillet over medium heat. Whisk together until all the ingredients are hot. Whisk in Parmesan cheese.
6. Combine pasta, vegetables, and sauce. If the sauce is too thick, add reserved pasta liquid a tablespoon at a time.
7. Garnish with parsley.

Nutritional analysis per serving: 810 calories, 21 g protein, 51g fat, 145 mg cholesterol, 370 mg sodium, 62 g carbohydrate, 2 g fiber

Modified

Yield: 4 servings

- 16 ounces *Fettuccine pasta*
- 1/4 cup *butter*
- 1/2 cup 2% *milk*
- 1 cup *grated Parmesan cheese*
- 2 cups *cauliflower, cooked*
- 8 ounces *sliced mushrooms*
- 10 ounces *fresh spinach*
- 5 ounces *sliced-in-half cherry tomatoes*
- 2 *minced garlic cloves*
- 2 *tablespoons dried parsley*

1. Cook pasta according to package directions.
2. Place cooked cauliflower into a blender with 1 tablespoon of milk. Blend until smooth.
3. Heat 1 tablespoon of butter in a large sauté pan over medium heat. Add garlic, and sauté for 1 minute, stirring occasionally.
4. Add mushrooms, and sauté for 3 minutes, continuing to stir occasionally.
5. Add spinach and tomatoes. Sauté 4 to 6 minutes more or until all vegetables are done.
6. Meanwhile, heat butter and milk in a large skillet over medium heat. Whisk together until all ingredients are hot. Whisk in Parmesan cheese and blended cauliflower until all ingredients are hot.
7. Combine pasta, vegetables, and sauce.
8. Garnish with parsley.

Nutritional analysis per serving: 490 calories, 22 g protein, 16g fat, 40 mg cholesterol, 380 mg sodium, 63 g carbohydrate, 3 g fiber

Modification Hints

- Using low-fat dairy products reduces the fat content of a recipe.
- Adding vegetables adds valuable nutrients.

Ingredients Substitutions

Substituting and/or limiting certain nutrients or ingredients will be different for everyone depending on how you are trying to improve your health. Healthwise, many of us are concerned with our intake of fat, cholesterol, sodium, and/or sugar. Luckily, these are the most common ingredients that can be successfully altered in most baked products.

What is Fat and Cholesterol?

Dietary fat is either saturated or unsaturated. Saturated fats are found in animal products and whole milk dairy products. Saturated fats are a dietary risk factor in developing heart disease, and they raise blood cholesterol. Try to replace saturated fats with polyunsaturated or monounsaturated fats. You can do this by using oils, such as olive, vegetable, canola, or peanut instead of solid fats, such as butter, stick margarine, shortening, lard, and coconut oil.

Cholesterol is a waxy fat-like substance that is produced by our bodies or obtained by eating certain foods. Because we don't know how much cholesterol our bodies make, we should limit our intake to no more than 300 mg of cholesterol per day. Dietary cholesterol is found in foods of animal origin, such as meats, egg yolk, and whole-fat dairy products.

Tips to Reduce Fat and Cholesterol Intake

- Choose lean cuts of meat, fish, shellfish, and poultry, while limiting the serving size to 3 ounces. Remove any skin or extra fat before cooking.
- Use egg whites or egg substitute. Usually 2 egg whites or 1/4 cup of egg substitute is equal to 1 egg.
- Limit butter, margarine, or solid fats. Replace with canola, corn, safflower, olive, soybean, or sunflower oils. Remember, no matter the source of the fat, they are equal in calories.
- Use low-fat, reduced-fat, or nonfat mayonnaise or salad dressing.

- Use skim, 1%, or 2% milk instead of whole.
- Use low-fat cheeses.
- Use nonfat or reduced-fat sour cream or fat-free plain yogurt. Use 2% or fat-free cottage cheese. Use part-skim ricotta.
- Reduce nuts and coconut by 50%.
- Sauté in chicken broth or vegetable oil instead of oil.
- Avoid deep-fried foods or limit how often you eat them. Try braising, broiling, grilling, poaching, sautéing, and steaming instead.
- Read food labels so you are aware what your favorite foods contain.

What is Salt and Sodium?

Sodium and salt are mistakenly thought to be the same ingredient. Sodium is a mineral, while salt is a naturally occurring chemical compound made up of both sodium and chloride. Salt is the major source of sodium in the diet. One teaspoon of table salt contains 2,300 milligrams (mg) of sodium. The daily recommended amount of sodium is less than 2,300 milligrams.

Research shows that high amounts of sodium and low amounts of calcium and potassium are linked to high blood pressure. Since salt is an acquired taste, cutting back on salt a little at a time will allow your taste buds to adjust. Replace the saltshaker on the table with the subtle flavors of herbs and spices or lower-salt seasoning mixes. These are a great way to replace salt in your diet. Experiment with small amounts of fresh or dried herbs and spices to find seasonings your family will accept.

Tips to Reduce Salt Intake

- Start with 1 teaspoon of mild herbs or spices, such as basil, cinnamon, cumin, lemon pepper, or oregano per six servings.
- Start with only 1/4 teaspoon of strong herbs or spices, such as allspice, cloves, ginger, nutmeg, rosemary, or tarragon per six servings. Ground herbs are stronger than dried which are stronger than fresh. If a recipe calls for 1/4 teaspoon of ground herbs, use

3/4 to 1 teaspoon of dried or 2 teaspoons of fresh herbs.

- Choose frozen vegetables without sauces or use no-salt-added canned goods. Rinsing canned vegetables will help reduce sodium.
- Omit salt or reduce salt by half in most recipes (except in products with yeast).

Table Seasoning

Yield: 1/2 cup

Blend 2 tablespoons each of dry mustard, onion powder, and paprika; 2 teaspoons each of garlic powder, white pepper, and ground thyme; and 1/2 teaspoon ground basil together. Store in a tightly covered container.

Grilled Meat Seasoning

Yield: 1/2 cup

Blend 1 tablespoon each of ground basil, oregano, ground anise seed, and powdered lemon rind and 2 tablespoons of garlic powder together. Store in a tightly covered container.

Grilled Poultry Seasoning

Yield: 1/2 cup

Blend 2 tablespoons each of ground basil, oregano, marjoram, and garlic powder and 1 teaspoon of black pepper together. Store in a tightly covered container.

What is Sugar?

Sugar is the number one additive in the United States. The following guidelines can help to reduce the amount of sugar in baked goods. If you reduce the amount of sugar in a recipe, add a small amount of vanilla, cinnamon, or nutmeg. The recommendation is to consume less than 10% of calories per day from added sugars.

Tips to Reduce Sugar Intake

- Use 1/2 cup of sugar per cup of flour in cakes.
- Use 1 tablespoon of sugar per cup of flour in muffins and quick breads.
- Use 1 teaspoon of sugar per cup of flour in yeast breads.
- Reduce sugar by 25% to 50%.

References

- Academy of Nutrition and Dietetics. 2019. *The Facts on Sodium and High Blood Pressure*. <https://www.eatright.org/health/wellness/heart-and-cardiovascular-health/the-facts-on-sodium-and-high-blood-pressure>
- American Heart Association. 2014. *Smart Substitutions to Eat Healthy*. <https://www.heart.org/en/healthy-living/healthy-eating/cooking-skills/cooking/smart-substitutions-to-eat-healthy>

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