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## Kidney Friendly Ingredient and Recipe Substitutions

Baking and cooking on a kidney-friendly diet can be a challenge. But with the right information, substitutions can be made to keep some of your favourite foods on the menu!

The best way to prepare foods that are kidney-friendly is to make them yourself. Foods that are store bought or prepared are often high in sodium, potassium, phosphorus and sometimes calcium. Depending on your dietary requirements, you may have to make substitutions for some or all of those nutrients. If you need to follow a specific diet for your kidney disease, your dietitian will guide you on which nutrients you need to watch out for.

### Baking Ingredients and Kidney Friendly Substitutions

Some ingredients cannot simply be removed from a recipe. Ingredient substitutions may need to be “tweaked” to ensure the right mixture of fat, liquids, and leavening agents. Leavening agents, used in foods such as cakes and pastries to help them rise, can often be high in phosphorus, potassium and sodium. Baking powder can be high in sodium and phosphorus. Be careful of low sodium baking powder as it is high in potassium. Check the nutrition facts table to see how much sodium, phosphorus and potassium is in the product.

Here is a recipe for phosphorus-free baking powder:

- ¼ cup cream of tartar
- 2 tablespoons baking soda
- Sift together cream of tartar and baking soda using a fine strainer.
- Store in an airtight jar or Ziploc bag at room temperature until ready to use.
- Makes 6 servings (approximately 1 tablespoon per serving).
- Per serving: Sodium 1261 mg, Potassium 990 mg

From: [www.davita.com/recipes/sauces-and-seasonings/homemade-phosphorus-free-baking-powder/r/5089](http://www.davita.com/recipes/sauces-and-seasonings/homemade-phosphorus-free-baking-powder/r/5089)

Although this recipe is low in phosphorus, it does remain high in potassium and sodium. Dry Active Yeast is a good alternative as a leavening agent as it is a sodium- and



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potassium-free and lowest in all of the nutrients that are of concern for people with kidney disease.

**Baking soda** can be a large source of sodium. Cream of tartar can also be a large source of potassium. Be sure to check nutrition facts table to find the lowest sodium & potassium product.

Other kidney friendly substitutions for recipe ingredients are:

| <b>Baking Ingredient</b>    | <b>Problem nutrients</b>             | <b>Kidney Friendly Substitution</b>  |
|-----------------------------|--------------------------------------|--|
| Whole wheat flour           | High in potassium and phosphorus     | Any white flour  |
| Self-rising flour           | High in sodium and phosphorus        | All purpose white flour  |
| Regular butter or margarine | High in sodium                       | Unsalted butter or non-hydrogenated margarine  |
| Sugar (for diabetics)       | Adds additional carbohydrate         | Sugar substitutes (such as Splenda®)   |
| Eggs                        | Higher in cholesterol and phosphorus | Egg whites or egg substitutes  |
| Salt                        | High in sodium                       | Reduce amount of salt in recipes. Alternatively herbs and spices can be used – nutmeg, cinnamon, low sodium spices |
| Milk                        | High in potassium and phosphorus     | Unenriched almond or rice beverage (any flavour except chocolate)  |

### If you decide to purchase baked goods

If you are purchasing items from the bakery, you will not be able to make substitutions as discussed above. Look for and limit items with the following ingredients:

- Chocolate or cocoa (powder)
- Items containing banana
- Items containing nuts or peanut butter



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- Items containing large amounts of milk (including condensed and evaporated milk)

## **Kidney friendly baked items (eat in moderation):**

- Sugar cookies or spice cookies
- Shortbread
- Vanilla wafers
- Vanilla/white cake
- Angel food cake
- Lemon and lemon flavoured cakes and pastries
- Apple, berry and peach pie
- Breads: sourdough, white, French, Italian
- Cinnamon rolls
- Bagels (avoid whole wheat and bagels containing raisins) – blueberry, plain, sesame

## **What about other recipes (cooking)?**

In general, many recipes can be adapted to be more kidney friendly. Here are some suggestions to make your favorite recipes lower in potassium, sodium, phosphorus and calcium.

If you are trying to watch your phosphorus intake, consider making the following modifications to your recipes:

- Substitute milk with unenriched rice or almond beverage (as long as it's not chocolate flavoured)
- Use small amounts of cheese when called for in a recipe, or choose cream cheese if it fits.
- If possible, omit nuts from the recipe.
- If whipping cream is called for in a dessert, try using a small amount of whipped topping instead (like Cool Whip®)
- Use fresh meat choices – baked, barbecued, roasted or broiled – in place of processed meats. This will also reduce your sodium intake as well.

If you are trying to watch your potassium intake, consider the following changes to your recipes:

- Peel, cut and boil potatoes, carrots and broccoli in a separate pot of water to leach potassium before draining and adding to the soup or stew.



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# Kidney Community Kitchen

Fact Sheet

- Avoid tomato sauces – try a small amount of fresh tomato instead, or if making a pasta dish, use small amounts of olive oil and garlic in place of the tomato sauce. This is a good replacement for cream sauces which are high in phosphorus.
- Choose low potassium fruits and vegetables whenever possible. Consult your dietitian for a list of these foods.
- Try choosing pasta or white rice instead of potatoes. Mashed cauliflower is a good alternative to mashed potatoes.

If you are trying to watch your sodium intake, consider making the following adaptations to your cooking and recipes:

- Make your own low sodium salad dressings – oil and balsamic vinegar is a sodium free choice.
- If using nuts in a recipe, choose the unsalted variety.
- Choose low sodium canned foods whenever possible. Rinsing canned vegetables and legumes (like kidney beans and chickpeas) can help reduce the sodium content.
- Add a variety of herbs and seasonings to flavour your foods.