



Cooking to Preserve Nutrients

Cooking has an impact on the nutrient content of foods. As soon as a fruit or vegetable is picked, it begins to lose nutrients. Generally, the best way to get the most nutrients from your produce is by eating raw fruits and vegetables, but that's not always realistic.

While fruit is mostly consumed raw, other foods like vegetables, grains, legumes, and animal proteins are often consumed after they've been cooked. While it's true that cooking can destroy some nutrients in food, it can also make other nutrients more easily absorbed and used by the body. The cooking process also:

- Makes high-fiber foods and animal proteins easier to digest
- Makes foods that are hard or tough in their raw form easier to chew
- Destroys parts of plants that can be harmful

Because there are benefits to both cooked and raw foods, it's best to eat a variety of both every day. This will help you maximize your intake of beneficial nutrients.

Cooking Tips

- When it comes to maximizing nutrient content, gentle cooking methods are generally better. So, use as little heat, liquid, and time as possible to cook your food.
- When cooking with fats and oils, make sure to choose the right one for the job. Foods cooked on high heat should be cooked in a fat or oil with a high smoke point. Fats and oils heated beyond their smoke point (that is, the point at which they smoke and burn) can be harmful.
- If cooking or re-heating food in a microwave, use glass or ceramic containers, as harmful chemicals can leech out of plastic containers and into your food.
- Making soups and stews is a good way to maximize the nutrient content of your food. During the cooking process, nutrients that leech out of individual foods end up in the cooking liquid, which is eaten as part of the meal.

Cooking Methods

- **Bake or Roast:** Foods are gently cooked using hot dry air, usually in an oven. Because no additional liquid is added to food during this method, most vitamins, minerals, and other nutrients remain in the food. Baking involves cooking foods that lack a solid structure until they become solid (e.g., cakes, muffins). Roasting involves cooking foods that have a solid structure before cooking begins (e.g., meat and vegetables).
- **Boil or Blanch:** This water-based cooking method uses hot water (212°F, or 100°C) to cook food. Boiling is a longer cooking method (e.g. 5-20 minutes) and blanching is a quick cooking method (e.g. 1 minute). Because boiling is an intense process, most of the nutrients leech out of the food and into the cooking liquid. If the food is drained before eating, many of the vitamins and minerals will be lost. To get the most nutrients, blanch vegetables whenever possible or consume the liquid when boiling food (as in the case of a soup or stew).
- **Fry or Sauté:** Foods are fried quickly in small amount of hot fat or oil. Healthy fats and oils, like olive oil, will help your body absorb fat-soluble nutrients (such as Vitamins A, D, E, and K) from your food. Any liquid that is released from vegetables when sautéing should also be consumed, as some vitamins and minerals may have leached out into the liquid during the cooking process.

- **Microwave:** Electromagnetic waves stimulate the molecules in food, making them vibrate and spin, which heats the food. This is generally a quick process with water-based foods. Foods that contain fats and oils heat less evenly, and may require more cooking time. Foods should be microwaved in glass or ceramic containers only. **Do not cook in plastic containers.**
- **Slow Cook:** Foods are cooked gently, usually in a liquid, over low heat for an extended period of time. Because a lot of water-soluble vitamins and minerals will leech into the liquid during cooking, this method is a good choice for soups, stews, and other one-pot meals that will use the cooking liquid. The best way to maximize the nutrient content of meals cooked in a slow-cooker is to cook everything except the vegetables for an extended time, then add the vegetables during the last half-hour of cooking.
- **Steam:** Foods are cooked gently above, but not touching, boiling water. Instead, steam from boiling water provides heat to cook the food, usually for a short amount of time. Because of the gentle nature of the method, little water from the food is lost, so **most nutrients remain intact**. On the downside, no cooking fat is involved in the process. This means that any fat-soluble vitamins in the food won't be absorbed by the body, unless steamed food is served or finished with some sort of fat or oil (e.g., avocado, olive oil, nuts, etc.).
- **Simmer or Poach:** These cooking methods are similar to boiling, in that they are liquid-based methods. The only difference between them is the temperature of the liquid used, which impacts the intensity. Food that is simmered is heated to 185–200°F (85–93°C). Simmering is appropriate for sauces, soups, stews, and tough cuts of meat. At a simmer, food is moved around enough to allow flavors to mix, but not moved so much that the food is damaged. Poached foods are not cooked above 180°F (82°C). Poaching is best for delicate foods like eggs, poultry, fish, and fruit, all of which can easily dry out with other cooking methods.