

## Effect of Food Preparation on Nutrients & Phytochemicals

	<b>Effect on Nutrients &amp; Phytochemicals in Fruits and Vegetables</b>	<b>What You Can Do</b>
<b>Vine Ripening</b>	Allowing the food to ripen while still on a living plant allows the plant to continue making what that plant needs to live. A plant makes antioxidants like beta-carotene or lycopene because they're antioxidants that protect the plant from the damaging effects of oxygen. That beta-carotene or lycopene can also serve as antioxidants in our cells so it's to our advantage to let a plant make a maximum amount. Keep in mind some produce is sold as vine ripened, as is purchase on the vine, but the vine was cut when the fruit, was not ripe.	<ol style="list-style-type: none"> <li>1. Have a garden so you can have your own vine-ripened produce.</li> <li>2. Buy locally-grown produce. Foods grown far away need to be picked green and hard so they transport better.</li> </ol>
<b>Time After Harvesting</b>	As soon as a food is harvested, the food begins the decomposition process. Although you don't see evidence of it right away, everything in the food begins breaking down and this includes the nutrients that are there.	<ol style="list-style-type: none"> <li>1. Buy an appropriate amount.</li> <li>2. Use as soon as possible after buying.</li> <li>3. Use frozen or canned produce if frequent shopping for local produce isn't possible. Produce is processed usually within hours of being harvested, so it has more vitamins than fresh produce that was harvested a week ago or more.</li> </ol>
<b>Air Exposure</b>	Air speeds the decomposition process and hastens loss of nutrients.	<ol style="list-style-type: none"> <li>1. Use uncut.</li> <li>2. If cutting, use large pieces when possible and don't cut until ready to use.</li> </ol>
<b>Temperature</b>	Temperature can also hasten the breakdown of nutrients. But it can also mean you eat more of it since you might cook a food down (like spinach) or make it more appealing. There are substances (the antioxidant lycopene, for example) that become more bioavailable with cooking.	<ol style="list-style-type: none"> <li>1. Chill after buying although sometimes people prefer the flavor of room temperature vegetables (tomatoes, for example).</li> <li>2. Enjoy both raw produce and cooked produce.</li> </ol>
<b>Water</b>	Water dissolves minerals and water-soluble vitamins.	<ol style="list-style-type: none"> <li>1. Don't soak produce.</li> <li>2. Limit water use. Microwaving and steaming both limit nutrient loss.</li> <li>3. Consider using cooking water for cooking rice or cereal or add it to vegetable stock. If you're not going to use it right away, freeze it.</li> </ol>

