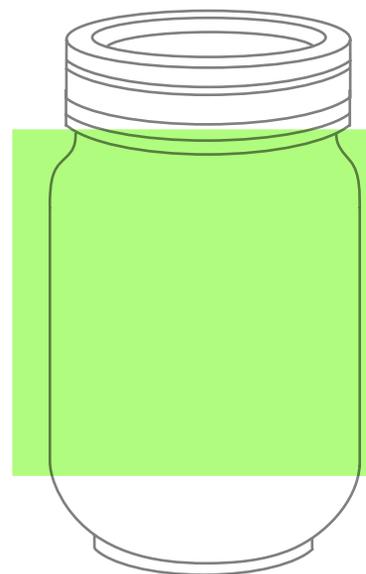
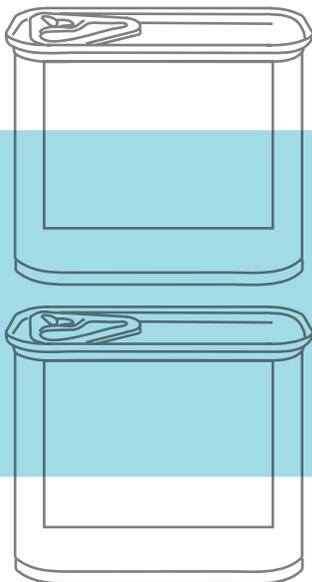


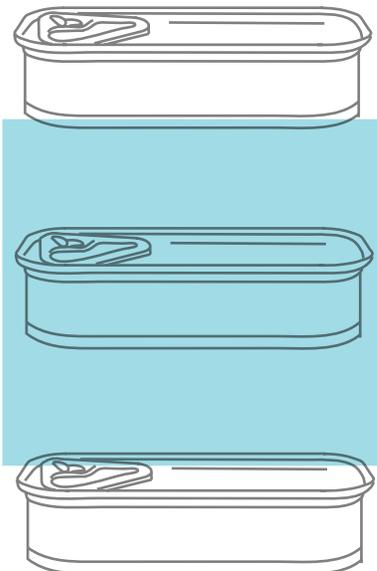
# To Can or Not to Can?



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**Many people don't have time** to make meals from scratch or go to the store to buy fresh ingredients every day. Instead, some rely on canned goods that have a long shelf life and often contain important ingredients for meals. Canned food can be quickly heated and added for flavor and nutrition. However, how healthy are these canned goods? It is important for consumers to make an informed decision about the health benefits of canned goods and to understand both the risks and benefits of eating out of the can.





## Do canned goods contain unhealthy chemicals?

### bisphenol A (BPA)

The main harmful chemical found in cans is bisphenol A (BPA). This chemical lines metal cans and polycarbonate plastics like baby bottles. In studies with rodents, BPA is found to speed up sexual maturation, alter behavior and affect the prostate and mammary glands. In humans, BPA has connections with increased cardiovascular disease, diabetes and male sexual dysfunction. **This chemical is fairly widespread as the Environmental Working Group (EWG) found trace amounts in nearly 57% of all cans ranging from canned meat to vegetables and soups.** Although BPA has been linked to health problems, a 2011 study published in the *Journal of Agricultural and Food Chemistry* indicated that the amount of BPA in cans to be almost 1000 times lower than the "tolerable daily intake" levels set by the US Environmental Protection Agency (EPA) and the European Food Safety Authority (EFSA). These levels are set at 0.5 milligrams per kilogram of body weight.

However, **some acidic canned goods, such as tomatoes and citrus, can cause BPA to leach into foods much faster, which increases the BPA content during consumption.** Also, **when metal is used to scrape the can, the metal on metal friction increases the likelihood of scraping off some of the chemical lining;** therefore, it is suggested that scraping should be done with a wooden utensil. Overall, there is still little risk involved in buying canned and other packaged goods that might contain BPA because canned goods levels of BPA levels are not anywhere near amounts that are dangerous for human consumption. For those who are still worried about potential health detriments of BPA, there are many varieties of BPA-free canned goods available. In addition, many goods that are canned may also be bought in glass jars or other containers that do not contain BPA.

### preservatives

Other common chemicals found in canned goods are preservatives. Preservatives are needed to increase shelf life by preventing mold, yeast, and bacteria from growing in the food products. However, this can also result in adverse effects for human consumption as **often chemical interactions within the body turn these preservatives into carcinogens.** Sodium nitrate, often found in pickled vegetables has been linked to stomach cancer. A 2006 study published in *World Journal of Gastroenterology* reviewed currently published studies on gastric cancer and found that foods containing nitrate were significantly linked to this cancer. In addition, this chemical was found to be related to tumors in 40 different species of animals. A 2002 study published in the *International Journal of Cancer* discovered that nitrosamines, another preservative, might elevate the risk for esophageal cancer. Therefore, preservatives in canned goods could be detrimental for human health and thus, the use of canned foods should be limited to when fresh ingredients are not an option.

## Quick Guide for Canned Goods Consumption:

### If you're buying canned goods, look for:

- > Labels that say "BPA free lining" and "Preservative free"
- > Foods that are out of season and difficult to get fresh
- > Foods that need heavy processing like garbanzo beans, cranberry sauce, chicken stock etc.
- > Foods that need to be preserved like olives



### When shopping for canned goods, avoid:

- > Acidic fruits and vegetables
- > Fresh foods that are always available
- > Canned goods with high sodium content (*The Dietary Guidelines for Americans* recommends less than 2300 mg of sodium a day)
- > Foods that can be bought in other containers, like jars



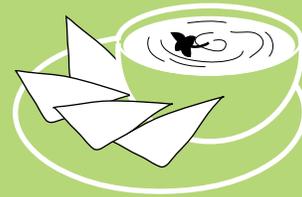
## Are fresh fruits and vegetables more nutritious than canned foods?

**Fresh and canned fruits have been found to be nutritionally similar for many common minerals and vitamins.** In fact, for a few nutrients, canned goods were found to be superior to fresh fruits. A 2007 review of nutrition in canned goods published in the *Journal of the Science of Food and Agriculture* found that fresh fruits and vegetables have also been found to lose nutrients after harvest; for example, green peas have been found to lose 51.5% of their ascorbic acid during the first 24 to 48 hours after picking. On the other hand, canned peas had smaller losses of ascorbic acid, less than 15% compared to ripe peas. In addition, **fruits and vegetables are often picked before being fully ripened and are either artificially ripened or naturally ripen in transport which results in lower nutritional value.** **Canned goods are picked fully ripened and quickly transported to canning facilities which results in higher nutrition.** Unfortunately, some of those nutrients can be leached out of canned goods as they are stored on shelves. However, as most Americans do not eat enough total fruits and vegetables as recommended by the government's Five-A-Day program, supplementing their diet with canned goods is a good alternative if fresh fruits and vegetables are not available. This by no means suggests that people should forgo fresh produce because often times, canned foods contain a lot of sodium which can lead to increased blood pressure.

### Easy Canned Recipe:

#### Hummus:

This snack is easy and fast to make, not to mention incredibly nutritious. Also, it is perfect for busy students and professionals alike as it doesn't have many ingredients and can be stored for a week at a time, thus enabling people to make a bigger batch for consumption later. Not only is it great for dipping with fresh vegetables, it can also work as a spread for a sandwich or pita bread. Chickpeas, the main ingredient, are high in fiber and can regulate blood sugar levels as well as lower cholesterol. Although this is a basic recipe, don't hesitate to add in other condiments like sundried tomatoes or olives for a more personalized flavor.



#### Ingredients:



1 clove of garlic



1 can of garbanzo beans, approximately 15 ounces



2 tablespoons of tahini



1 teaspoon of salt



2 tablespoons of olive oil



4 tablespoons of lemon juice



black pepper to taste

#### Directions:

In a blender, first blend the garlic and then pour the garbanzo beans into the blender. Then, place the lemon juice, tahini and salt in the blender and blend until everything is creamy and well mixed. Transfer the mixture to a medium serving bowl and sprinkle with pepper and pour olive oil.

