

PennState Extension

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Canning Soup Safely

The convenience of canned soup makes cooking and meal preparation easier on busy days. Ingredients and preparation techniques determine the safety of home canned soups.

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Because of the convenience of canned soup, many food preservers would like to reproduce soups found in the deli or supermarket. However, there are some commercially prepared foods that just cannot be reproduced safely by the home canner. Creamed soups are not suitable for home canning because their ingredients interfere with the proper transfer of heat during the processing step and can result in food borne illness.

Freezing soups containing problem ingredients is a safer option. Penn State Extension's Let's Preserve Soup provides detailed instructions for canning and freezing soup.

Problem Ingredients in Canned Soup

• Adding flour or other thickening agents to a product for home canning prevents heat from penetrating to the center of the jar, interfering with a safe process to destroy bacterial spores that cause botulism.

• **Never** add thickening agents to a home-canned product during processing. Wait until you are ready to prepare the food for serving then add flour, cornstarch, or another thickening agent.

• The **only exception** to this rule is when a scientifically research tested recipe calls for Clear Jel[®] as in pie fillings or small amounts of thickener in a few relish recipes.

- It is not safe to create your own recipe for canning.
- Butter, milk, cream, cheese and other dairy products are low-acid foods that should never be added to home canned soups before processing. Add butter and milk to soup just before serving.
- Products high in starch also interfere with heat processing.
 - Avoid using noodles, alphabet noodles, spaghetti, or other pasta, rice, barley, etc to canned soups.
 - Add noodles or any type of pasta, rice, or dumplings to canned soups or stews at serving time.

Safe Soups to Can

- Vegetable soups in a broth base may be safely canned using the process time for the ingredient that takes the longest to process as an individual ingredient.
- Most soups will take 60 to 90 minutes to process in a pressure canner depending upon jar size and ingredients.
- Never can soup in half-gallon containers.
- Use caution to avoid packing ingredients too solidly in the jars.
- For vegetable soup, fill the jars half full of solids, add broth allowing 1-inch headspace and process in a pressure canner. There needs to be space for the hot liquid to circulate between the food particles.
- Pieces of cooked beef or chicken can be added to the vegetables to make a vegetable meat soup.
- Thickened or creamed tomato soup **should not** be canned. Instead, can tomato juice, tomato vegetable juice blend, or crushed tomatoes (without added vegetables). When you want to make the soup, open the jar of tomato product, add whatever seasoning vegetables and thickeners, desired. A good cream of tomato soup is made by pouring the heated tomato mixture into a heated white sauce.
- **Do not** can pumpkin, winter squash, broccoli, or cauliflower soup.
 - These pack together and contain ingredients that interfere with safe processing.
 - There are not scientifically research tested recipes for these soups.

Freezing Soup

How can you preserve soup safely? Freeze it.

- Freezing temperatures do not kill bacteria; however, they do not grow in the freezer.
- Using a modified starch suitable for low temperatures such as ThermFlo[®] will help prevent separation of a thickened soup.

• Soups made from fall vegetables such as pumpkin, butternut squash, cauliflower, or broccoli are flavorful when frozen.

• It is safe to freeze vegetable and meat soups that contain pasta, rice, or noodles. Starch in these products may become soft during freezer storage.

• Just remember to allow time for frozen soup to thaw in the refrigerator; or if it is defrosted in the microwave oven, it should be heated and eaten immediately.

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